Illinois Environmental Protection Agency

Technical Memorandum – Final
Southeast Rockford Groundwater Contamination Superfund Site
Source Area 7 Pre-Design Field Study

Text, Tables, and Figures

October 12, 2005

Technical Memorandum

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October 12, 2005

Mr. Thomas Williams
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Subject: 2010300074 - Winnebago County
Southeast Rockford Groundwater Contamination Superfund Site
Final-Source Area 7 Pre-Design Field Study Technical Memorandum
Rockford, Winnebago County, Illinois
Superfund/Technical

Dear Mr. Williams:

Camp Dresser & McKee is pleased to submit four copies of the Source Area 7 Pre-Design Field Study Technical Memorandum for the Southeast Rockford Groundwater Contamination Superfund Site, located in Rockford, Winnebago County, Illinois. The appendices for the technical memorandum were issued on September 7, 2005.

If you have any questions or comments, please contact me at (312) 251-8337.

Sincerely,

John Grabs, P.G.
Project Manager
Camp Dresser & McKee Inc.

cc: Russ Hart, USEPA Region 5
Mary Reed, USDOJ

Technical Memorandum

To: *Mr. Thomas Williams, Illinois EPA*

From: *Mr. John Grabs*

Date: *September 7, 2005*

Subject: *Southeast Rockford Groundwater Contamination Superfund Site Source Area 7 Pre-Design Field Study Technical Memorandum*

This Technical Memorandum was prepared in accordance with Task 12 of the Camp Dresser & McKee (CDM) Scope of Work and Cost Estimate dated December 15, 2003 for the Source Area 7 (Area 7) Pre-Design Sampling at the Southeast Rockford Groundwater Contamination Superfund Site.

This memorandum summarizes the field activities conducted during the Area 7 Pre-Design Field Study and evaluates the groundwater, soil, and soil gas data collected during the sampling activities. The purpose of the study was to collect groundwater, soil and soil gas samples to support development of the Area 7 source material and leachate control treatment systems. The Area 7 remedial design (RD) is being prepared to meet the requirements of the Operable Unit (OU) 3 Record of Decision (ROD), dated June 11, 2002.

Area 7 Pre-Design Field Study sampling and analysis was conducted to define the nature and extent of contamination in the vicinity of Ekberg/Pine Manor Park and evaluate the groundwater quality in the area of the proposed leachate extraction well system.

This technical memorandum presents the results of the field activities conducted as part of the Area 7 Pre-Design Field Study between August 2004 and June 2005. Work related to this phase of the Area 7 Pre-Design Field Study was conducted in several mobilizations and consisted of the following activities:

- Collected soil and soil gas samples to further define the extent of soil contamination in the northern portion of Area 7.
- Installed monitoring wells in the southern portion of Area 7 and attempted Geoprobe® groundwater sampling.
- Conducted the first round of groundwater sampling from monitoring wells in the vicinity of Area 7. Monitoring wells located on the property surrounding the Ekberg/Pine Manor Park were not sampled during this round.

- Collected soil samples to further define the extent of soil contamination within Ekberg/Pine Manor Park.
- Completed the monitoring well installations in the southern portion of Area 7.
- Completed the second round groundwater sampling from monitoring wells in the vicinity of Area 7. This round included the monitoring wells located on the property surrounding the Ekberg/Pine Manor Park.

Except as noted, all field activities including sampling and analysis were conducted in accordance with the approved CDM Source Area 7 Pre-Design Sampling and Analysis Plan (SAP) and Quality Assurance Project Plan (QAPP) Addendum, both dated August 16, 2004. All deviations from the SAP and QAPP Addendum were discussed with the Illinois Environmental Protection Agency (Illinois EPA) Remedial Project Manager (RPM) prior to making any field changes.

During field activities on August 31, 2004, the property owner of the land surrounding the Ekberg/Pine Manor Park rescinded the Grant of Access that was originally signed on May 4, 2004. All field activities were immediately suspended, resulting in some uncollected soil samples from the northern portion of Area 7 and the incompletion of monitoring well installations in the southern portion of Area 7. Without access to the land surrounding the Ekberg/Pine Manor Park several wells were also unable to be sampled during the first round of groundwater sampling. A second mobilization to install the remaining monitoring wells and a second round of groundwater sampling was conducted after the Grant of Access was reinstated.

General Site Information and History

Source Area 7 is primarily a grassy area located at the eastern end of Balsam Lane. Area 7 contains Ekberg/Pine Manor Park and an open area containing some woodlands. The park includes a basketball court, tennis court and a playground. The open field and wooded areas are located south of the park on a hillside, which slopes to the north. Two small valleys merge at the base of the hill where surface water flows through the Ekberg/Pine Manor Park and ultimately drains to an intermittent creek which runs along the north side of Area 7. Residences border the area to the west and southwest (downgradient) and distantly to the east (upgradient). Parts of Area 7 were once used as sand and gravel pits. Review of aerial photographs and reports from private citizens indicated that illegal dumping likely occurred in Area 7.

The stratigraphy of Area 7 consists of a heterogeneous assemblage of unconsolidated and discontinuous sands, silts, and clays that overlie dolomite bedrock. This type of geology is consistent with the past reports of quarrying. An east-west trending buried bedrock valley roughly parallels the present-day creek valley. Groundwater flow in both the unconsolidated and bedrock aquifers is to the northwest, with localized discharge of shallow groundwater to the creek. Depth to groundwater ranges from 36 feet south of the park, to 13 feet within the park to less than 2 feet near the creek.

Based on previous site investigation results, elevated concentrations of ethylbenzene, toluene, xylene and chlorinated volatile organic compounds (VOCs) were detected in soils in Area 7. These investigations identified three primary VOC source areas or "hot spots" in Area 7. These primary areas of contamination are shown as the shaded areas on **Figure 1**. The depth to significant levels of contamination varies from 4 feet below ground surface (bgs) in the northern area to 27-29 feet bgs in the northern and southern locations. Contamination is present in the soils both above and below the water table. Many of the silt and clay units encountered during the studies were found to be contaminated throughout indicating that the contamination has migrated into the less permeable, fine-grained sediments in Area 7. The presence of non-aqueous phase liquids (NAPL) is strongly suspected in all of these areas and was confirmed at a depth of 25 feet below ground surface in the northernmost "hot spot", which is 10 feet below the level of the water table. The contamination in the subsurface in Area 7 is impacting the groundwater and local surface water and is contributing to the Southeast Rockford Groundwater Contamination Site.

Soil Gas Investigation

Soil gas sampling was conducted to further define the extent of contamination in the northern portion of Area 7. Field activities were conducted in accordance with the Source Area 7 Pre-Design SAP and QAPP Addendum, both dated August 16, 2004.

A soil gas survey was conducted from August 23 to 26, 2005 to further identify areas of subsurface VOC contamination to the north of the playground in Area 7 and to assist with locating soil sample locations. Previous investigations did not fully confirm the extent of areas with VOC contamination in the subsurface to the north of the playground and south of the creek. Additionally, the areas where recent dumping of debris has occurred were investigated to the extent practicable.

On August 23, 2004, CDM began field activities for the Pre-Design Study at Source Area 7. CDM staked out a sampling grid in the open area north of Ekberg/Pine Manor Park. The number of sample locations was adjusted in the field as necessary based on field conditions. Five of the proposed 43 locations were situated within the tree line and were inaccessible for sampling. In addition, due to saturated soil conditions, 10 of the proposed sample locations (locations 11, 12, 13, 14, 26, 27, 28, 29, 30, and 31) could not be accessed by the direct-push drill rig used for sampling and therefore, soil gas samples could not be collected at these locations.

CDM's subcontractor, Soil Essentials Inc., of New Glarus, Wisconsin, used direct push technology to collect soil gas samples. The soil gas samples were collected using the Post Run Tubing (PRT) system in accordance with the Source Area 7 Pre-Design SAP. Soil gas samples were collected in Tedlar bags and analyzed for VOCs on site using a gas chromatograph by New Age/Landmark Mobile Laboratory Services of Benton Harbor, Michigan.

CDM collected total of 31 soil gas samples from 29 sampling locations. Soil gas sampling locations are shown on **Figure 2**. In the Scope of Work, CDM proposed two

soil gas samples at each location. A shallow soil gas sample was proposed from 8 to 10 feet bgs, or just above the water table if water was encountered shallower than 8 feet bgs. A deep soil gas sample was proposed from 18 to 20 feet bgs if site conditions allowed. It was anticipated that some samples would not be able to be collected due to expected shallow groundwater. CDM was able to collect shallow soil gas samples from all 29 locations and deep soil gas samples from 2 of the 29 locations (locations 1 and 20).

Twelve of the 31 soil gas samples contained quantities of VOCs above method detection limits (MDL). **Table 1** summarizes the analytical results for detected VOCs in the soil gas samples collected. A soil gas total VOCs contour plot is presented as **Figure 3**. The soil gas detections were mainly limited to the southwestern portion of the sampling grid, with the greatest detections adjacent to the northwest corner of Ekberg Park at soil gas sampling locations SG-01, SG-02, and SG-18. The complete analytical laboratory reports for the soil gas results are provided in **Appendix A**. Further discussion of the soil gas sampling results is included in the data evaluation section.

Soil Investigation

Soil sampling was conducted during several mobilizations to further define the extent of contamination at Source Area 7. Sampling was conducted following the soil gas sampling in August 2004, during the monitoring well installations in August 2004, and during a separate mobilization in April 2005. Field activities were conducted in accordance with the Source Area 7 Pre-Design SAP and QAPP Addendum.

Soil Sampling - August 2004

Based on the results of the soil gas sampling in the northern part of Area 7, CDM selected 25 sampling locations for soil sample collection. Sample locations were selected based upon locations of soil gas samples that showed the highest concentrations of VOCs. However, CDM was only able to collect 19 samples from 18 of the proposed soil sample locations before the property owner rescinded the Grant of Access to the property surrounding the Ekberg/Pine Manor Park. All field activities ceased immediately on August 31, 2004. Consequently, samples could not be collected from seven of the previously selected sample locations. The numbering system for the soil borings followed the original grid set up in the area north of the park. The location of the soil borings are shown in **Figure 4**.

Soil borings were advanced using direct-push methods performed in accordance with the Source Area 7 Pre-Design SAP. CDM's field engineer classified the soil according to the unified soil classification system (USCS) and field screened the soil using a photoionization detector (PID). Soil samples were collected at depths determined by soil gas results and field screening results. Visual and olfactory characteristics, lithology, field screening observations, sample depth, and identification designation were recorded on borehole log sheets. The borehole log sheets for all direct push

boring locations are provided in **Appendix B.** Investigation locations and sample depths for the August 2004 direct push sampling event are listed below:

Investigation Location	Sample Depth(s)
A7-GP-01	4 to 6 feet bgs and 14 to 16 feet bgs
A7-GP-02	6 to 8 feet bgs
A7-GP-03	0 to 2 feet bgs
A7-GP-04	0 to 2 feet bgs
A7-GP-05	2 to 4 feet bgs
A7-GP-17	4 to 6 feet bgs
A7-GP-18	2 to 4 feet bgs
A7-GP-19	2 to 4 feet bgs
A7-GP-20	2 to 4 feet bgs
A7-GP-23	0 to 2 feet bgs
A7-GP-24	2 to 4 feet bgs
A7-GP-25	2 to 4 feet bgs
A7-GP-32	2 to 4 feet bgs
A7-GP-33	2 to 4 feet bgs
A7-GP-34	2 to 4 feet bgs
A7-GP-36	2 to 4 feet bgs
A7-GP-37	0 to 2 feet bgs
A7-GP-40	0 to 2 feet bgs

Field screening indicated elevated VOC concentrations in 9 of the 18 sample locations. (GP-1, 2, 3, 4, 5, 18, 24, 32, and 33) The field screening observations included strong solvent odors, elevated PID readings, and visual observation of free product. These observations closely matched the locations where soil gas was detected, with the greatest VOC observations adjacent to the northwest corner of Ekberg/Pine Manor Park. Free-phase product was observed in subsurface soils at depths of 4 to 5 feet bgs and 10 to 12 feet bgs at soil sampling location GP-02. The free-phase product observed was clear in color, hydrophobic, and had a strong solvent-like odor.

Additional soil samples were collected during the monitoring well installation activities in August 2004. Two borings (MW135B and MWX1) were completed in the area south of the Ekberg/Pine Manor Park as shown in **Figure 4.** The borings were advanced and continuously sampled using a sonic drilling method. CDM's field geologist classified the soil according to the USCS soil classification system and field screened the soil using a PID. The borehole log sheets are provided in **Appendix B.** One soil sample from each of the two soil borings was collected for VOC analysis. Soil sampled from MW135B was collected based on a hydrocarbon odor in the soil and elevated PID readings. Soil sampled from MW-X1 was collected from unsaturated soils just above the water table as no indication of contamination was observed in the unsaturated zone. Investigation locations and sample depths for the soil samples collected during the August 2004 well installations are listed below:

Investigation Location	Sample Depth
A7-MW-135B	43.5 to 44 feet bgs
A7-MW-X1	46 to 46.5 feet bgs

Soil Sampling - April 2005

Based on the results of previous investigations, additional soil sampling was conducted on April 26, 2005 to further define soil contamination within the Ekberg/Pine Manor Park. The borings were numbered GP-101 through GP-109 and the locations are shown in **Figure 4.** The soil borings were advanced using direct-push methods and performed in accordance with the Source Area 7 Pre-Design SAP. CDM's field geologist classified the soil according to the USCS and field screened the soil using a PID. Visual and olfactory characteristics, lithology, field screening observations, sample depth, and identification designation were recorded on borehole log sheets. The borehole log sheets for all direct push boring locations are provided in **Appendix B.** Soil samples were only collected and submitted for analysis if soils with evidence of soil staining or free-phase product were observed. Investigation locations and sample depths for the April 2005 direct push sampling event are listed below:

Investigation Location	Sample Depth
A7-GP-101	Not sampled
A7-GP-102	12 to 13 feet bgs
A7-GP-103	Not Sampled
A7-GP-104	5 to 6 feet bgs
A7-GP-105	Not Sampled
A7-GP-106	Not Sampled
A7-GP-107	12 to 14 feet bgs
A7-GP-108	Not Sampled
A7-GP-109	23 to 24 feet bgs

Soil Sampling Results

Each sample was collected using three 5-gram EnCore™ samplers and analyzed for Target Compound List (TCL) VOCs through the United States Environmental Protection Agency (USEPA) Contract Laboratory Program (CLP). All samples were collected and shipped in accordance to the CLP guidance for field samples and the Source Area 7 Pre-Design SAP and QAPP. The analytical laboratory and CLP data validation reports are included in **Appendix C.**

The analytical results for the soil sampling are presented in **Table 4.** The results are compared to the Remediation Goals (RG) for contaminants of concern (COC) established in the ROD. The ROD established three sets of RGs for Area 7, one set relates to the direct contact exposure pathway (area-wide), and two sets (proximal and distal) relate to the migration to groundwater exposure pathway. RGs are also listed in **Table 4.**

The area-wide RGs apply to soils from ground surface to 10 feet bgs within Area 7. The proximal RGs apply to soils closest to the Groundwater Management Zone (GMZ) boundary in the direction of groundwater flow. The distal RGs apply to soils farthest away from the GMZ boundary in the direction of groundwater flow. The GMZ boundary, as defined in the ROD, is likely to change prior to the completion of the Area 7 Remedial Design and for the purposes of this technical memorandum, soil results are compared to the lowest applicable RGs for Area 7.

Area 7 COCs were detected above MDLs at multiple soil sample locations. Contaminant concentrations for one or more COCs exceeded RGs in samples collected at GP-02 from 4 to 6 feet bgs, GP-102 from 12 to 13 feet bgs, GP-107 from 12 to 14 feet bgs, GP-109 from 23 to 24 feet bgs and MW 135 from 43.5 to 44 feet bgs. **Figure 5** presents the Total VOC concentrations detected above MDLs.

Due to sample dilution, some MDLs were reported at concentrations greater than the RGs. Therefore, although some COCs were not detected at the reported MDL, actual concentrations may exceed the RGs at soil sample locations GP-02 from 4 to 6 feet bgs, GP-18 from 2 to 4 feet bgs, GP-102 from 12 to 13 feet bgs, GP-104 from 5 to 6 feet bgs, GP-107 from 12 to 14 feet bgs, GP-109 from 23 to 24 feet bgs, and MW 135 from 43.5 to 44 feet bgs.

Groundwater Investigation

The groundwater investigation portion of the Area 7 Pre-Design Field Study was conducted during several mobilizations to collect current groundwater quality data in the vicinity of Area 7 and support the development of the Area 7 leachate control and treatment systems. The groundwater investigation included monitoring well installations in the southern and southwestern portions of Area 7. The well installations were completed in two mobilizations in August 2004 and May 2005. The second mobilization was required because activities were halted when the property access agreement was rescinded at the end of August 2004. The groundwater investigation also included two groundwater monitoring well sampling events. The first round of sampling was completed in October 2004. Due to access restrictions, this first round of sampling did not include monitoring wells located on the property directly surrounding Ekberg/Pine Manor Park. A second mobilization and round of sampling was conducted in June 2005 that included all wells missed during the first round of sampling. Groundwater monitoring wells sampled during the Area 7 Pre-Design Field Study are shown in **Figure 6**.

Field activities were conducted in accordance with the Source Area 7 Pre-Design SAP and QAPP Addendum.

Monitoring Well Installations - August 2004

Monitoring well installation activities began with an attempt to collect groundwater samples with a direct-push drilling rig. The direct-push groundwater sampling was intended to evaluate groundwater quality in the southwestern portion of the site and

provide information to locate monitoring wells downgradient of the proposed extraction well system.

Direct-push borings were advanced at five (5) locations in the southwest portion of the site. Refusal was met at each location prior to reaching groundwater and no samples were collected. The borings were abandoned using bentonite grout and granular bentonite.

On August 30, 2004, CDM and the drilling subcontractor, Boart-Longyear, of Schofield, Wisconsin began drilling operations at Source Area 7. Prior to the termination of the drilling and well installation activities at Area 7, CDM installed one new monitoring well (MW135B) and completed a second monitoring well boring (MW-X1). Due to the rescinded access agreement the second boring had to be abandoned prior to well installation. The monitoring well and boring locations are shown on **Figure 6.**

Monitoring well MW135B was drilled and installed approximately 35 feet west of existing well MW135. MW135A was installed in the unconsolidated overburden with the bottom of the screened interval located above the surface of the dolomite bedrock, at approximately 34 feet bgs. At the time of installation, the well screen for MW135A straddled the water table; however in dry periods, this well is dry.

The new well (MW135B) is screened in weathered dolomite bedrock. The boring was advanced to 80 feet bgs using a sonic drill rig. Highly weathered dolomite bedrock was encountered between approximately 61 and 80 feet bgs. A 2-inch diameter PVC monitoring well was installed with a 0.010-inch slotted screen from 70-80 feet bgs. Well installation procedures were conducted in accordance with the Source Area 7 Pre-Design SAP. The well is protected at the surface with a 5-inch diameter protective casing with a locking cap and bumper posts. The depth to groundwater was approximately 50 feet bgs at MW-135B.

The abandoned soil boring, MW-X1, is located approximately 350 feet west of MW-135B and was advanced to 85 feet bgs. Unconsolidated overburden primarily consisting of silts, silty sands, and sands were observed to 75 feet bgs at boring MW-X1. Highly weathered dolomite bedrock was encountered at boring MW-X1 between 75 and 85 feet bgs. Due to the property owner rescinding the access agreement, a monitoring well was not installed at this location and the boring was abandoned by backfilling with a cement-bentonite grout on August 31 and September 1, 2004.

During advancement of all monitoring well boreholes, continuous 4-inch diameter cores were obtained and logged at each boring. Six-inch diameter steel casing was advanced as each boring progressed. CDM's field geologist classified the soil according to the USCS soil classification system. The soils generally consisted of interbedded silty and sandy glacial till and sand. The soil and bedrock cores were field screened with a PID. All soil samples registered 0 parts per million (ppm) on the PID except the 43.5 to 44-foot depth interval at MW135B, where a reading of 50

ppm was obtained. All field screening observations were recorded on the boring logs. The boring and well construction logs for MW-135B and MW-X1 are presented in **Appendix B.**

One soil sample from each of the two soil borings was submitted for analysis of TCL VOCs by USEPA CLP. The soil sample from boring MW135B was collected from where the hydrocarbon odor was noted at 43.5-44 feet bgs (A7-MW135B). The soil sample from boring MW-X1 was collected from 46-46.5 feet bgs (A7-MWX1). The analytical results indicate elevated VOC concentration in the soil sample from MW-135B. No VOCs were detected in the soil sample from MW-X1. The analytical laboratory and data validation reports are included in **Appendix C.**

Monitoring Well Installation- May 2005

On May 16, 2005, CDM and the drilling subcontractor, Boart-Longyear, remobilized to Area 7 to continue drilling operations. CDM installed three new monitoring wells (MW143, MW144, and MW145) to the southwest of Ekberg/Pine Manor Park. The monitoring well locations are shown on **Figure 4.**

These monitoring wells were also advanced using a sonic drill rig. MW-143 was advanced to 75 feet bgs, MW-144 was advanced to 85 feet bgs, and MW145 was advanced to 45 feet bgs. Continuous 4-inch diameter cores were obtained and logged at MW143 and MW145. MW144 was not continuously sampled because it was located adjacent to the previously logged and sampled abandoned boring MW-X1. Six-inch diameter steel casing was advanced as the borings progressed at each location.

CDM's field geologist classified the soil according to the USCS soil classification system. Unconsolidated overburden primarily consisting of silts, silty sands and sands were observed to 46 feet bgs at boring MW-143 and to the terminal depth of boring MW-145 at 45.5 feet bgs. Highly weathered dolomite bedrock was encountered at borings MW-143 between 46 and 75 feet bgs, and was confirmed at boring MW-144 between 75 and 85 feet bgs. The soil and bedrock cores were field screened with a PID. All soil samples registered 0 parts per million (ppm) on the PID; however, a solvent-like odor was observed at MW145 at approximately 43 feet bgs. All field screening observations were recorded on the boring logs. The boring and well construction logs for MW143, MW144, and MW145 are presented in **Appendix B.**

The monitoring wells were constructed of 2-inch diameter PVC with 0.010-inch slotted screens. MW-143 was screened from 63.5 to 73.5 feet bgs, MW-144 was screened from 74 to 84 feet bgs, and MW-145 was screened from 35 to 45 feet bgs. Well installation procedures were conducted in accordance with the Source Area 7 Pre-Design SAP. The wells are protected at the surface with five-inch diameter standpipe covers with locking caps and bumper posts. All new newly installed monitoring well locations and elevations were surveyed by a professional land

surveyor, Missman Stanley & Associates of Rockford, IL, during June 2005. Survey information is recorded on the boring logs presented in **Appendix B.**

Direct Push Analytical provided oversight of all monitoring well installation activities on behalf of the property owner. The oversight field representative collected soils that were place into zip-lock bags from MW-143 and MW-145. CDM did not collect any soil samples for laboratory analysis during monitoring well installation activities performed during May 2005.

Monitoring Well Redevelopment - September 2004

Prior to the first round of groundwater monitoring, CDM redeveloped several Area 7 wells that had not been sampled recently in order to improve the hydraulic connection between the monitor well and the surround aquifer. Many of the wells had been inactive for over 5 years and sediment had accumulated in the wells and filter pack.

On September 22, 2004, CDM redeveloped monitoring wells MW103B, C, and D; MW106B and C; and MW134C. Redeveloping activities consisted of alternately surging water in the screened interval, and purging water from the well with a submersible pump. Water was purged from the wells until turbidity readings were stable. Thirty to 50 gallons were evacuated from each well.

Groundwater Sampling - October 2004

The first round of groundwater sampling was conducted between October 11, 2004 and October 13, 2004. Seventeen wells were included in this sampling event. These wells include MW102A, B, C; MW103A, B, C, D; MW106A, B, C; MW133A, B, C; MW134A, B, C; and MW136. Well construction details for these wells are provided in **Table 2.** Due to property access restrictions, the monitoring wells located on the property directly surrounding the Ekberg/Pine Manor property were not included in this sampling event.

The wells were purged with a low-flow submersible pump in accordance with the Source Area 7 Pre-Design SAP. Field measurements of pH, temperature, specific conductance, turbidity, dissolved oxygen, and reduction/oxidation potential were taken at regular intervals during purging. After the parameters had stabilized, a groundwater sample was collected. The groundwater sampling log sheets containing the groundwater quality parameter data are presented in **Appendix D.**

USEPA CLP field sampling protocols, chain-of-custody and shipping procedures were used for groundwater sample collection. All groundwater samples were analyzed for LDL TCL VOCs by CLP. Samples from two monitoring wells, MW134B and MW106A, were also analyzed for Target Analyte List (TAL) inorganics, including cyanide, by CLP to evaluate the leachate pre-treatment needs for the RD.

The analytical results of the groundwater sampling are presented in **Table 5.** The analytical laboratory and CLP data validation reports are included in **Appendix E.**

CDM observed that wells MW-133A, B, and C and wells MW-102 A, B, and C had QED® Micropurge, bladder pumps installed in them. These bladder pumps were removed by CDM personnel during sampling activities and replaced when sampling was complete. The bladder pumps had an iron (Fe) coating and generally appeared in poor condition. Sediment was also noted at the bottom of each of these wells.

Monitoring Well Development and Redevelopment - May 2005

Prior to the second round of groundwater sampling in June 2005, CDM developed the newly installed wells (MW-135B, MW-143, MW-144, and MW-145) and redeveloped several existing monitoring wells that had not been sampled in over 5 years (MW-112B and C, MW-105D, and MW-122A and B).

The wells were redeveloped between May 23 and 26, 2005 by alternately surging water in the screened interval, and purging water from the well with a submersible pump. Water was purged from the wells until turbidity readings were determined acceptable by CDM site personnel as prescribed in the Area 7 Pre-Design SAP. Approximately 1,000 gallons of groundwater was evacuated during well development and redevelopment activities.

Monitoring Well Repair

Prior to the June 2005 sampling event, CDM also made repairs to several existing monitoring wells. The monitoring well repairs are described below.

Well Number(s)	Repair Date	Description of Repair
MW105A, B, C	5/16/05	Replaced concrete pad surrounding stick-up cover
MW105D	5/17/05	Installed protective posts around well stick-up cover
MW122	5/19/05	Replace well stick-up cover and replaced concrete pad
MW112B	6/16/05	Repaired lock loop on well stick-up cover
MW103C	6/16/05	Repaired lock loop on well stick-up

In addition, locks at MW102, MW103, MW104, MW-05, MW106, MW112, MW122, MW133, MW134, MW135, and MW136 series wells were removed and replaced with new locks provided by the Illinois EPA.

Groundwater Sampling - June 2005

CDM sampled 16 monitoring wells in the vicinity of Area 7 between June 13, 2005 and June 16, 2005. These included MW102A, B, C; MW105A, B, C, D; MW112A, B, C; MW-122A, B; MW135B; MW-143, MW-144, and MW-145 as shown on **Figure 6**. Well construction details for these well are provided in **Table 3**. Monitoring wells were sampled using the same procedures as the October 2004 sampling event. The groundwater sampling log sheets containing the groundwater quality parameter data are presented in **Appendix F**.

USEPA CLP field sampling protocols, chain-of-custody and shipping procedures were used for groundwater sample collection. All groundwater samples were analyzed for LDL TCL VOCs by CLP. The analytical results of the groundwater sampling are presented in **Table 5**. The analytical laboratory and data validation reports are included in **Appendix G.**

Groundwater Investigation Results

The analytical results for the first and second rounds of groundwater sampling are presented in **Table 5**. The results are compared to the groundwater RGs for contaminants of concern (COCs) established in the ROD, dated June 11, 2002. The groundwater RGs are based on Maximum Contaminant Levels (MCL) developed pursuant to the Safe Drinking Water Act. The MCL is also used for contaminants not identified as site-related COCs. Groundwater RGs are also listed in **Table 5**.

Area 7 COCs were detected above RGs at multiple groundwater monitoring well locations. Exceedances of applicable RGs for one or more COCs detected above MDLs were observed at monitoring wells MW-102A, C, MW-103A, B, C, D, MW-105A, B, MW-106A, B, MW-112B, MW-133B, C, MW-134A, B, MW-135B, MW-143, MW-144 and MW-145. **Figure 7** presents the horizontal extent of total VOC concentrations detected above MDLs. **Figures 8** and **9** present the vertical extent of total VOC concentrations detected above MDLs along the length and width of the groundwater VOC plume, respectively.

A total of four samples, a filtered and an unfiltered sample from two wells (MW-134B, MW-106A) were collected to determine total and dissolved metal concentrations in Source Area 7 groundwater. Several metal concentrations remained consistent in both the dissolved and undissolved samples in both wells at between 110 and 112 mg/L calcium, 50 and 53 mg/L magnesium and 36 to 45 mg/L sodium. Iron concentrations were below quantitation limits in monitoring well MW-134B and approximately 5 mg/L in monitoring well MW-106A. Typically, iron concentrations above 1 mg/L indicate that metals pretreatment should be considered when designing a groundwater treatment system. Since the concentrations of iron at the site are not significantly higher than 1 mg/L and vary throughout the site to well below 1 mg/L, pretreatment may not be necessary. The analytical laboratory and data validation reports are included in **Appendix E.**

Geological and Hydrogeological Investigation

Geology

Bedrock in Southeast Rockford study area is described in the Final Remedial Investigation (RI) Report (CDM 1995). In the vicinity of Area 7 the topography of the bedrock surface is in the shape of a narrow, east-west trending valley. The bottom of the valley is in close proximity to the northern perimeter of Area 7 and decreases in depth and to the west. Area 7 lies on the southern flank of the bedrock valley where bedrock elevation, along with ground surface elevation, increase to the south.

The bedrock consists of dolomite of the Galena-Platteville Group. This dolomite is typically found to be highly weathered, gray to tan in color, and contain vugs and sub-horizontal fractures along bedding planes. St Peter Sandstone underlies the Galena-Platteville dolomite in Southeast Rockford. In the vicinity of Area 7 the top of the St Peter Sandstone is approximately 300 feet bgs and consists of a fine grained quartz sandstone.

As observed in previous investigations, the majority of unconsolidated sediments in the vicinity of Area 7 are the result of glacial deposition during the Quaternary geologic time period. These sediments are part of the Nimitz Member of the Winnebago Formation (Berg et al., 1984).

The data collected during the subsurface activities of this phase of the Pre-Design Field Study supplement and support the results of the previous investigations, which are described in the 1995 RI Report. Bore-log information shows that the sediments in the vicinity of Area 7 are complexly interbedded till and outwash deposits of gravels, sands, silts, and clays. Unconsolidated units in this area are laterally discontinuous over short horizontal distances and vary in thickness between well locations or grade into other types of unconsolidated materials. This highly variable geology is shown in two generalized geologic cross-sections in Area 7. **Figure 10** presents the two cross section lines and the cross sections are presented in **Figures 11 and 12**. The complex lateral relationships in this portion of the Southeast Rockford Study Area only allow for general stratigraphic correlation. As an example of the discontinuity of the unconsolidated units is that the fine to medium sand encountered at MW135B from 6 to 20 feet bgs was not observed at MW135A, which is located only 30 feet to the east. Another example is that the coarse sand and gravel encountered at MW145 from 35 to 46 feet bgs was not encountered in the borings (MW144 and MW145) to the south.

Hydrogeology

The groundwater investigation in this area of Southeast Rockford has focused on the following three aquifer units: the unconsolidated glacial sediments, the Galena-Platteville dolomite, and the St Peter Sandstone. These aquifers are referred to as the unconsolidated aquifer, the dolomite aquifer, and the sandstone aquifer, respectively.

At Area 7 the unconsolidated glacial sediments overlie the Galena-Platteville dolomite and fill in the bedrock valley. The groundwater data collected during this phase of the Pre-Design Field Study also supplement and support the results of previous investigations, which are presented in the 1995 RI Report. No areally continuous confining layers have been observed in the unconsolidated glacial sediments in the vicinity of Area 7 and the unconsolidated aquifer appears hydraulically connected to the dolomite aquifer. This is evidenced by the static water level measurements collected previously and the most recent round of measurements (June 2005) from well nests where wells are screened in both aquifers. Comparison of levels in MW103A to MW103B, MW112A to MW112B and MW105C and MW105D all show static water elevations within one-half foot (see **Tables 2 and 3**). These small head

differences suggest that the aquifers are in hydraulic communication at these locations.

Clay and silt layers in this portion of the study area appear to be localized and do not extend across the entire region. Local clay layers may create semi-confined conditions and wells screened above and below these clay layers can show substantial differences in static water elevations. For example there is a substantial head difference of approximately 19 feet between the shallow well (MW102A) screened in the unconsolidated aquifer and the intermediate well (MW102B) screened in the dolomite at the MW102 well nest as measured in June 2005 (See **Table 3**). While these clay horizons do not appear to form an area wide confining layer, they can divert local groundwater movement.

The direction of groundwater flow was determined from water level measurements collected in June 2005. Groundwater level measurements and elevations are presented in **Tables 2** and **3**. Groundwater contours for the unconsolidated aquifer and the dolomite aquifer are show in **Figures 13** and **14**, respectively. Groundwater elevation for the sandstone aquifer was not contoured because only one data point is available (MW106D).

Based on CDM's study, the general direction of groundwater flow in the vicinity of Area 7 is to the west and northwest in both the unconsolidated and dolomite aquifers. The average hydraulic gradient is also similar for both aquifers. At Area 7, the unconsolidated and dolomite aquifers have an average hydraulic gradient of 0.011 feet per foot (ft/ft) and 0.012 ft/ft, respectively. West of Area 7, the unconsolidated and dolomite aquifers have an average hydraulic gradient of 0.027 ft/ft and 0.022 ft/ft, respectively.

Vertical hydraulic gradients are presented for well nests in the contaminant plume cross sections shown in **Figures 8 and 9.** Vertical hydraulic gradients indicate the tendency of groundwater to flow vertically. The gradients vary in direction and magnitude across the study area. This is further evidence that an area wide confining layer is not present and that localized variations in geology are the major factor influencing groundwater movement.

Data Evaluation

Soil Gas

Soil gas sampling was conducted to further define the extent of subsurface VOC contamination in the northern portion of Area 7. Previous investigations did not fully confirm the extent of areas with VOC contamination in the subsurface to the north of the park playground and south of the creek. Additionally, the areas where recent dumping of debris has occurred were investigated to the extent practicable.

Soil gas sampling in Area 7 was previously conducted during 1992, 1993 and 1996 and the results are presented in the Remedial Investigation (RI) Report, January 1995 and

the Southeast Rockford Source Control Operable Unit Focused Feasibility Study (SCOUFFS), September 2000. The highest concentrations were found in a roughly north-south band that generally follow the small valley that runs from south of the basketball court, through the park and north towards the railroad tracks. These soil gas surveys did not extend north past the park playground.

The results of the August 2004 soil gas sampling are consistent with the results of the previous soil gas surveys. The highest VOC concentrations were detected adjacent to the northwest corner of Ekberg/Pine Manor Park. As in the previous soil gas surveys 1,1,1-TCA, was generally the most abundant compound detected. These results indicate that the Area 7 source area extends approximately 100 feet north of Ekberg/Pine Manor Park in the general vicinity of the small valley identified in **Figure 3**.

Soil

Based on the results of the soil gas sampling, soil sampling locations were selected to define the extent of subsurface VOC contamination in the northern portion of Area 7. Evidence of free phase product and elevated concentration of VOCs were observed in subsurface soils to the north of Ekberg/Pine Manor Park in the general vicinity of the small valley as shown in **Figure 5**. The distribution of contaminants was consistent with the results of the soil gas sampling results and identified portions of the northern most hotspot. The location of the northern most hot spot identified in the August 2004 soil sampling are consistent with previous soil sampling performed during 1996 as presented in the SCOUFFS and the location of the "contaminated subsurface soil" presented in Figure 3 and Figure 4 of the ROD.

Additional soil sampling is required to define the extent of subsurface VOC contamination in the vicinity of the southern most hotspot and within the Ekberg/Pine Manor Park.

Groundwater

The results of the groundwater investigation indicate that the distribution and concentration of contaminants within groundwater monitoring wells are generally similar to results from previous sampling investigations. The highest concentrations of VOCs were observed within the unconsolidated aquifer at monitoring well location MW-134A. Monitoring well MW-134A is located in the vicinity of the northern hot spot and area of free product observed in the northwest corner of Ekberg/Pine Manor Park and adjacent property owned by Mr. Ekberg.

The results of the groundwater sampling from the newly installed wells (MW135B, MW143, MW144, and MW145) in the southern portion of Area 7 show significant downgradient VOC contamination from the southern most hotspot. These results also indicate that the VOC source may extend further to the south than previously believed. Additional groundwater monitoring wells are required to define the southern extent of VOC groundwater contamination.

Deviations from SAP and QAPP

The Source Area 7 Pre-Design SAP specifies that new high density polyethylene (HDPE) tubing would be used for each monitoring well sampling location. Instead, CDM decontaminated Teflon-lined HDPE tubing between sampling locations. This was to reduce the amount of IDW generated during the groundwater sampling events. Field blanks were collected from the decontaminated pump and tubing and confirmed that no cross-contamination occurred. The deviation was approved prior to sampling activities by the Illinois EPA RPM and was documented in a field change request form.

During purging of MW136, the well repeatedly ran dry. In accordance with generally accepted groundwater sampling practices, the well was purged to dryness several times, allowed to recharge, and a groundwater sample was collected.

An additional deviation is that fewer duplicate samples were collected during the August 2004 soil and soil gas sampling that stated in the Source Area 7 Pre-Design SAP and QAPP. According to the SAP and QAPP, duplicate samples were to be collected at a rate of one duplicate sample per 10 or fewer investigative samples for Quality Assurance/Quality Control (QA/QC) purposes. While collecting soil samples during August 2004, CDM collected twenty-one soil samples for investigative analysis, but only one duplicate sample was collected before the Grant of Access was rescinded. During collection of soil gas samples there were no duplicate samples collected. Soil gas sampling was conducted for field screening purposes to determine appropriate soil boring locations and it was determined that duplicated samples were not required to accomplish the objective of the soil gas sampling.

The affect of these deviations on data quality is assessed in the following section.

Data Usability Summary

The Final QAPP dated June 11, 2003 and the Source Area 7 Pre-Design QAPP Addendum dated August 16, 2004 present the project data quality objectives (DQOs), measurement quality objectives including precision, accuracy, representativeness, completeness, and comparability (PARCC) parameters, and the data verification and validation requirements.

Field QA/QC objectives were accomplished through the use of appropriate sampling techniques and collection of confirmatory samples, field duplicates, field blanks, and trip blanks. Analytical QA/QC was assessed by internal QC checks, calibration checks, method blanks, surrogate spikes, adherence to holding times, laboratory control samples (LCS), and matrix spike/matrix spike duplicates (MS/MSD). These QA/QC samples and procedures are collected and followed to insure that all results are representative of environmental conditions at the time of sampling. Data validation was completed by USEPA in accordance with the standards set forth in the Area 7 QAPP.

All field QA/QC samples were collected in accordance with the Source Area 7 Pre-Design SAP and QAPP Addendum with the exceptions that duplicate samples were not collected at a rate of one duplicate sample per 10 or fewer investigative samples during the soil and soil gas sampling in August 2004. The affect on data quality is expected to be minimal because data is not qualified based on field duplicate information. As all other QA/QC samples were collected, all laboratory QA/QC procedures were followed and results were validated through CLP, the analytical results of the investigative samples are considered usable.

References

Berg, R. C., J. P. Kempton, and A. N. Stecyk. 1984. *Geology for Planning in Boone and Winnebago Counties.* Illinois State Geological Survey Circular 531.

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Tables

Figures

Appendices

Tables

Table 1

Soil Gas Sample Detections

Analytes	Units	01A	01B	02A	03A	04A	10A	18A	19A	22A	23A	24A	32A
1,1-Dichloroethene	ppbv	5,200	960						74		300		
Trans-1,2-Dichloroethene	ppbv	5,200							260		72		
1,1-Dichloroethane	ppbv	36,000	3,800	11,000	160	53		12,000	3,400		760	220	120
Cis-1,2-Dichloroethene	ppbv	230,000	17,000	34,000	120	60		10,000	7,200		2,000	840	300
Chloroform	ppbv								40				
1,1,1-Trichloroethane	ppbv	630,000	33,000	280,000	150	1,200		140,000	6,300		830	420	200
Trichloroethene	ppbv	9,800				48			71				
Toluene	ppbv						96			77			
Tetrachloroethene	ppbv	9,000	390						100				

Note: Only detected analytes are shown in the table
All samples listed have the prefix A7-SG-
ppbv = parts per billion by volume

Table 2

Source Area 7 Wells Sampled in October 2004

Well Number	Aquifer Screened	Depth to Screen Base	Screen Length	Top of Casing Elevation	Depth to Water 6/13/05	Static Water Elevation
		(feet bgs)	(feet)	(feet AMSL)	(feet bgs)	(feet AMSL)
MW102A	unconsolidated	35	10	788.43	25.53	762.9
MW102B	bedrock	98	10	788.61	44.91	743.7
MW102C	bedrock	184.3	10	789.87	50.56	739.31
MW103A	unconsolidated	41	10	792.56	25.65	766.91
MW103B	bedrock	75	10	792.39	25.18	767.21
MW103C	bedrock	107.9	10	792.35	25.23	767.12
MW103D	bedrock	200.5	10	790.39	45.41	744.98
MW106A	unconsolidated	40.5	10	805.80	24.71	781.09
MW106B	bedrock	86.4	10	805.59	28.71	776.88
MW106C	bedrock	119.4	10	805.46	27.72	777.74
MW133A	unconsolidated	35	10	780.18	32.20	747.98
MW133B	unconsolidated	58	10	780.33	32.46	747.87
MW133C	bedrock	96	10	780.29	28.56	751.73
MW134A	unconsolidated	28	5	799.09	18.38	780.71
MW134B	unconsolidated	45	5	798.80	19.02	779.78
MW134C	unconsolidated	63	5	799.11	23.49	775.62
MW136	bedrock	45	5	834.77	40.09	794.68

Note: Depth to water measurements and static water elevations reflect the most recent round of measurements collected in June 2005.

Table 3

Source Area 7 Wells Sampled in June 2005

Well Number	Aquifer Screened	Depth to Screen Base	Screen Length	Top of Casing Elevation	Depth to Water 6/13/05	Static Water Elevation
		(feet bgs)	(feet)	(feet AMSL)	(feet bgs)	(feet AMSL)
MW102A	unconsolidated	35	10	788.43	25.53	762.9
MW102B	bedrock	98	10	788.61	44.91	743.7
MW102C	bedrock	184.3	10	789.87	50.56	739.31
MW104A	unconsolidated	77.0	10	818.10	43.25*	774.85
MW104B	bedrock	121.9	10	817.37	44.11*	773.26
MW104C	bedrock	146	10	818.25	46.18*	772.07
MW105A	unconsolidated	22	10	785.57	7.53	778.04
MW105B	unconsolidated	54	10	785.78	8.08	777.70
MW105C	unconsolidated	95	10	785.66	11.75	773.91
MW105D	bedrock	156.5	10	786.21	12.64	773.57
MW112A	unconsolidated	35	10	802.58	14.74	787.84
MW112B	bedrock	95	10	803.05	14.90	788.15
MW112C	bedrock	300	10	802.83	124.13*	678.70
MW122A	unconsolidated	60	10	810.47	22.82	787.65
MW122B	bedrock	130	10	810.33	23.48	786.85
MW135A	unconsolidated	34	10	835.19	dry	
MW135B	bedrock	80	10	839.85	57.35	782.50
MW143	bedrock	75	10	841.87	60.65	781.22
MW144	bedrock	85	10	836.28	55.54	780.74
MW145	unconsolidated	46	10	817.72	37.01	780.71

* Indicates depth to water measured on 6/16/05.

Table 4
Soil Boring Analytical Results
Southeast Rockford Area 7 Soil Sampling
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Analyte	Remediation Goal (ug/kg)	A7-GP-01A	A7-GP-01B	A7-GP-02A	A7-GP-03A	A7-GP-04A	A7-GP-05A	A7-GP-17A	A7-GP-18A
		8/30/2004	8/30/2004	8/30/2004	8/30/2004	8/30/2004	8/30/2004	8/31/2004	8/30/2004
1,1,1-TRICHLOROETHANE	180033	32	94	31000 J	4 J	< 10 U	< 10 U	< 10 U	310 J
1,1,2-TRICHLOROETHANE	619	< 10 U	< 14 U	< 2200 U	< 12 U	< 10 U	< 10 U	< 10 U	< 1300 U
1,2-DICHLOROETHANE	20	< 10 U	< 14 U	< 2200 U	< 12 U	< 10 U	< 10 U	< 10 U	< 1300 U
1,1-DICHLOROETHENE	60	< 10 U	< 14 U	< 2200 U	< 12 U	< 10 U	< 10 U	< 10 UJ	< 1300 U
BENZENE	30	< 10 U	< 14 U	< 2200 U	< 12 U	< 10 U	< 10 U	< 10 UJ	< 1300 U
CHLOROBENZENE	1000	< 10 U	< 14 U	< 2200 U	< 12 U	< 10 U	< 10 U	< 10 UJ	< 1300 U
CHLOROFORM	0.6	< 10 U	< 14 U	< 2200 U	< 12 U	< 10 U	< 10 U	< 10 U	< 1300 U
CIS-1,2-DICHLOROETHENE	400	14	13 J	2600 J	< 12 U	< 10 U	< 10 U	< 10 U	< 1300 U
ETHYLBENZENE	57347	< 10 U	< 14 U	7200 J	< 12 U	< 10 U	< 10 U	< 10 U	< 1300 U
METHYLENE CHLORIDE	1695000	< 20 UJ	< 32 UJ	< 2200 UJ	< 19 UJ	< 18 UJ	< 12 UJ	< 18 UJ	< 1300 U
TETRACHLOROETHENE	1465	12	52	320 J	< 12 U	< 10 U	< 10 U	< 10 U	< 1300 U
TOLUENE	255000	4 J	6 J	1200 J	8 J	4 J	2 J	2 J	< 1300 U
TRANS-1,2-DICHLOROETHENE	700	< 10 U	< 14 U	< 2200 U	< 12 U	< 10 U	< 10 U	< 10 U	< 1300 U
TRICHLOROETHENE	310	2 J	7 J	< 2200 U	< 12 U	< 10 U	< 10 U	< 10 UJ	< 1300 U
VINYL CHLORIDE	10	< 10 U	< 14 U	< 2200 UJ	< 12 U	< 10 U	< 10 U	< 10 UJ	< 1300 U
XYLENES (TOTAL)	119000	< 10 U	< 14 U	77000 J	< 12 U	< 10 U	< 10 U	< 10 U	< 1300 U
1,1,1-TRICHLORO-2,2-BIS (P-METHOXPHENYL)-ETHANE		< 10 U	< 14 U	< 2200 U	< 12 U	< 10 U	< 10 U	< 10 U	< 1300 U
1,1,2,2-TETRACHLOROETHANE		< 10 U	< 14 U	< 2200 U	< 12 U	< 10 U	< 10 U	< 10 U	< 1300 U
1,2,4-TRICHLOROBENZENE		< 10 U	< 14 U	< 2200 U	< 12 U	< 10 U	< 10 U	< 10 U	< 1300 U
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)		< 10 U	< 14 U	< 2200 U	< 12 UJ	< 10 U	< 10 U	< 10 U	< 1300 U
1,2-DIBROMOETHANE		< 10 U	< 14 U	< 2200 U	< 12 U	< 10 U	< 10 U	< 10 U	< 1300 U
1,2-DICHLOROBENZENE		< 10 U	< 14 U	3700 J	< 12 U	< 10 U	< 10 U	< 10 U	< 1300 U
1,1-DICHLOROETHANE		1 J	< 14 U	280 J	< 12 U	< 10 U	< 10 U	< 10 U	< 1300 U
1,2-DICHLOROPROPANE		< 10 U	< 14 U	< 2200 U	< 12 U	< 10 U	< 10 U	< 10 U	< 1300 U
1,4-DICHLOROBENZENE		< 10 U	< 14 U	< 2200 U	< 12 U	< 10 U	< 10 U	< 10 U	< 1300 U
2-BUTANONE		< 10 U	< 14 U	< 2200 U	< 12 U	< 10 U	< 10 U	< 10 U	< 1300 U
4-METHYL-2-PENTANONE		< 10 U	< 14 U	< 2200 U	< 12 U	< 10 U	< 10 U	< 10 U	< 1300 U
ACETONE		< 10 U	< 14 U	< 2200 U	< 12 U	< 10 U	< 10 U	< 10 U	< 1300 U
BROMODICHLOROMETHANE		< 10 U	< 14 U	< 2200 U	< 12 U	< 10 U	< 10 U	< 10 U	< 1300 U
BROMOMETHANE		< 10 U	< 14 U	< 2200 U	< 12 U	< 10 U	< 10 U	< 10 U	< 1300 U
CARBON DISULFIDE		< 10 U	< 14 U	< 2200 U	< 12 U	< 10 U	< 10 U	< 10 U	< 1300 U
CARBON TETRACHLORIDE		< 10 U	< 14 U	< 2200 U	< 12 U	< 10 U	< 10 U	< 10 U	< 1300 U
CFC-11		< 10 U	< 14 U	< 2200 U	< 12 U	< 10 U	< 10 U	< 10 UJ	< 1300 U
CFC-12		3 J	6 J	< 2200 UJ	5 J	< 10 UJ	5 J	< 10 UJ	< 1300 U
CHLORINATED FLUOROCARBON (FREON 113)		< 10 UJ	< 14 UJ	< 2200 U	< 12 U	< 10 UJ	< 10 UJ	< 10 UJ	< 1300 U
CHLOROETHANE		< 10 U	< 14 U	< 2200 U	< 12 U	< 10 U	< 10 U	< 10 UJ	< 1300 U
CHLOROMETHANE		< 10 U	< 14 U	< 2200 UJ	< 12 U	< 10 U	< 10 U	< 10 U	< 1300 U
CIS-1,3-DICHLOROPROPENE		< 10 U	< 14 U	< 2200 U	< 12 U	< 10 U	< 10 U	< 10 U	< 1300 U
CYCLOHEXANE		< 10 UJ	< 14 UJ	< 2200 U	< 12 U	< 10 UJ	< 10 UJ	< 10 U	< 1300 U
DIBENZOFURAN		< 10 U	< 14 U	< 2200 U	< 12 U	< 10 U	< 10 U	< 10 U	< 1300 U
ISOPROPYLBENZENE		< 10 U	< 14 U	< 2200 U	< 12 U	< 10 U	< 10 U	< 10 U	< 1300 U
M-DICHLOROBENZENE		< 10 U	< 14 U	< 2200 U	< 12 U	< 10 U	< 10 U	< 10 U	< 1300 U
METHYL N-BUTYL KETONE		< 10 U	< 14 U	< 2200 U	< 12 U	< 10 U	< 10 U	< 10 U	< 1300 U
METHYL TERT-BUTYL ETHER		< 10 U	< 14 U	< 2200 U	< 12 U	< 10 U	< 10 U	< 10 U	< 1300 U
METHYLCYLOHEXANE		< 10 U	< 14 U	240 J	< 12 U	< 10 U	< 10 U	< 10 U	< 1300 U
STYRENE (MONOMER)		< 10 U	< 14 U	750 J	< 12 U	< 10 U	< 10 U	< 10 U	< 1300 U
TRANS-1,3-DICHLOROPROPENE		< 10 U	< 14 U	< 2200 U	< 12 U	< 10 U	< 10 U	< 10 U	< 1300 U
TRIBOMOMETHANE		< 10 U	< 14 U	< 2200 U	< 12 U	< 10 U	< 10 U	< 10 U	< 1300 U

Notes: ug/kg = Micrograms per kilogram
J = Analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J = Analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
JJ = Analyte was not detected above the reported sample quantitation limit; however, the reported quantitation limit is approximate and may or may not represent the action limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
Values in Boldface exceed the Remediation Goal
Values with dark borders exceed the Remediation Goal and are above detection limit
Listed Remediation Goal is the lowest of the proxima , distal, or area-wide remediation goal as listed in the ROD
Blanks cells indicate results were rejected through data validation

Table 4
Soil Boring Analytical Results
Southeast Rockford Area 7 Soil Sampling
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Analyte	Remediation Goal (ug/kg)	A7-GP-19A	A7-GP-20A	A7-GP-23A	A7-GP-24A	A7-GP-25A	A7-GP-32A	A7-GP-33A	A7-GP-34A
		8/30/2004	8/30/2004	8/30/2004	8/31/2004	8/31/2004	8/31/2004	8/31/2004	8/31/2004
1,1,1-TRICHLOROETHANE	180033	3 J	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U
1,1,2-TRICHLOROETHANE	619	< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U
1,2-DICHLOROETHANE	20	< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U
1,1-DICHLOROETHENE	60	< 10 UJ	< 10 U	< 10 U	< 10 U	< 11 UJ	< 10 U	< 10 U	< 10 U
BENZENE	30	< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U
CHLOROBENZENE	1000	< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U
CHLOROFORM	0.6	< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U
CIS-1,2-DICHLOROETHENE	400	5 J	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U
ETHYLBENZENE	57347	< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U
METHYLENE CHLORIDE	1695000	< 18 UJ	< 18 UJ	< 17 UJ	< 19 UJ	< 19 UJ	< 23 UJ	< 19 UJ	< 22 UJ
TETRACHLOROETHENE	1465	2 J	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U
TOLUENE	255000	2 J	1 J	< 10 U	3 J	2 J	3 J	2 J	2 J
TRANS-1,2-DICHLOROETHENE	700	< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U
TRICHLOROETHENE	310	< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U
VINYL CHLORIDE	10	< 10 U	< 10 U	< 10 U	< 10 U	< 11 UJ	< 10 U	< 10 U	< 10 U
XYLENES (TOTAL)	119000	< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U
1 1,1-TRICHLORO-2,2-BIS (P-METHOXIPHENYL)-ETHANE		< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U
1,1,2,2-TETRACHLOROETHANE		< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U
1,2,4-TRICHLOROBENZENE		< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)		< 10 U	< 10 U	< 10 U	< 10 UJ	< 11 U	< 10 UJ	< 10 UJ	< 10 UJ
1,2-DIBROMOETHANE		< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U
1,2-DICHLOROBENZENE		< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U
1,1-DICHLOROETHANE		1 J	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U
1,2-DICHLOROPROPANE		< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U
1,4-DICHLOROBENZENE		< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U
2-BUTANONE		< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U
4-METHYL-2-PENTANONE		< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U
ACETONE		< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U
BROMODICHLOROMETHANE		< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U
BROMOMETHANE		< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U
CARBON DISULFIDE		< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U
CARBON TETRACHLORIDE		< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U
CFC-11		< 10 U	< 10 U	< 10 U	< 10 U	< 11 UJ	< 10 U	< 10 U	< 10 U
CFC-12		3 J	3 J	< 10 UJ	< 10 UJ	< 11 UJ	< 10 UJ	< 10 UJ	< 10 UJ
CHLORINATED FLUOROCARBON (FREON 113)		< 10 UJ	< 10 UJ	< 10 UJ	< 10 U	< 11 UJ	< 10 U	< 10 U	< 10 U
CHLOROETHANE		< 10 U	< 10 U	< 10 U	< 10 U	< 11 UJ	< 10 U	< 10 U	< 10 U
CHLOROMETHANE		< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U
CIS-1,3-DICHLOROPROPENE		< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U
CYCLOHEXANE		< 10 UJ	< 10 UJ	< 10 UJ	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U
DIBENZOFURAN		< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U
ISOPROPYLBENZENE		< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U
M-DICHLOROBENZENE		< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U
METHYL N-BUTYL KETONE		< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U
METHYL TERT-BUTYL ETHER		< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U
METHYLCYLOHEXANE		< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U
STYRENE (MONOMER)		< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U
TRANS-1,3-DICHLOROPROPENE		< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U
TRIBOMOMETHANE		< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U

Notes: ug/kg = Micrograms per kilogram
U = Analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J = Analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
UJ = Analyte was not detected above the reported sample quantitation limit; however, the reported quantitation limit is approximate and may or may not represent the action limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
Values in Boldface exceed the Remediation Goal
Values with dark borders exceed the Remediation Goal and are above detection limit
Listed Remediation Goal is the lowest of the proximal, distal, or area-wide remediation goal as listed in the ROD
Blanks cells indicate results were rejected through data validation

Table 4
Soil Boring Analytical Results
Southeast Rockford Area 7 Soil Sampling
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Analyte	Remediation Goal (ug/kg)	A7-GP-36A	A7-GP-37A	A7-GP-40A	A7-GP104 05'-06'	A7-GP107 12'-14'	A7-GP109 23'-24'	A7-GP102 12'-13'	A7-MW-135B
		8/31/2004	8/31/2004	8/31/2004	4/26/2005	4/26/2005	4/26/2005	4/26/2005	8/30/2004
1,1,1-TRICHLOROETHANE	180033	< 10 U	< 12 U	< 13 U	2200 J	340 J	77000	52000	470 J
1,1,2-TRICHLOROETHANE	619	< 10 U	< 12 U	< 13 U	< 1500 U	< 1400 U	< 1400 U	< 1500 U	< 1300 U
1,2-DICHLOROETHANE	20	< 10 U	< 12 U	< 13 U	< 1500 U	< 1400 U	< 1400 U	< 1500 U	< 1300 U
1,1-DICHLOROETHENE	60	< 10 U	< 12 U	< 13 UJ	< 1500 U	< 1400 U	< 1400 U	< 1500 U	< 1300 U
BENZENE	30	< 10 U	< 12 U	< 13 U	< 1500 U	< 1400 U	< 1400 U	< 1500 U	< 1300 U
CHLOROBENZENE	1000	< 10 U	< 12 U	< 13 U	< 1500 U	< 1400 U	< 1400 U	< 1500 U	< 1300 U
CHLOROFORM	0.6	< 10 U	< 12 U	< 13 U	< 1500 U	< 1400 U	< 1400 U	< 1500 U	< 1300 U
CIS-1,2-DICHLOROETHENE	400	< 10 U	< 12 U	< 13 U	< 1500 U	< 1400 U	3700 J	3800 J	< 1300 U
ETHYLBENZENE	57347	< 10 U	< 12 U	< 13 U	1800 J	350 J	5100 J	14000 J	< 1300 U
METHYLENE CHLORIDE	1695000	< 35 UJ	< 23 UJ	< 27 UJ	< 1500 UJ	< 1400 UJ	< 1400 UJ	< 2700 UJ	< 1300 U
TETRACHLOROETHENE	1465	< 10 U	< 12 U	< 13 U	< 1500 U	< 1400 U	< 1400 U	9100 J	< 1300 U
TOLUENE	255000	3 J	2 J	2 J	210 J	< 1400 U	1800 J	5600 J	< 1300 U
TRANS-1,2-DICHLOROETHENE	700	< 10 U	< 12 U	< 13 U	< 1500 U	< 1400 U	< 1400 U	< 1500 U	< 1300 U
TRICHLOROETHENE	310	< 10 U	< 12 U	< 13 U	< 1500 U	< 1400 U	< 1400 U	9000 J	< 1300 U
VINYL CHLORIDE	10	< 10 U	< 12 U	< 13 UJ	< 1500 U	< 1400 U	< 1400 U	< 1500 U	< 1300 U
XYLENES (TOTAL)	119000	< 10 U	< 12 U	< 13 U	18000 J	3700	35000 J	90000	97 J
1,1,1-TRICHLORO-2,2-BIS (P-METHOXPHENYL)-ETHANE		< 10 U	< 12 U	< 13 U	< 1500 UJ	< 1400 U	< 1400 UJ	< 1500 UJ	< 1300 U
1,1,2,2-TETRACHLOROETHANE		< 10 U	< 12 U	< 13 U	< 1500 U	< 1400 U	< 1400 U	< 1500 U	< 1300 U
1,2,4-TRICHLOROBENZENE		< 10 U	< 12 U	< 13 U	< 1500 U	< 1400 U	< 1400 U	< 1500 U	< 1300 U
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)		< 10 UJ	< 12 UJ	< 13 U		< 1400 U			< 1300 U
1,2-DIBROMOETHANE		< 10 U	< 12 U	< 13 U	< 1500 U	< 1400 U	< 1400 U	< 1500 U	< 1300 U
1,2-DICHLOROBENZENE		< 10 U	< 12 U	< 13 U	1300 J	< 1400 U	2000 J	3200 J	< 1300 U
1,1-DICHLOROETHANE		< 10 U	< 12 U	< 13 U	< 1500 U	< 1400 U	< 1400 U	< 1500 U	< 1300 U
1,2-DICHLOROPROPANE		< 10 U	< 12 U	< 13 U	< 1500 U	< 1400 U	< 1400 U	< 1500 U	< 1300 U
1,4-DICHLOROBENZENE		< 10 U	< 12 U	< 13 U	< 1500 U	< 1400 U	< 1400 U	< 1500 U	< 1300 U
2-BUTANONE		< 10 U	< 12 U	< 13 U	< 1500 UJ	< 1400 U	< 1400 UJ	< 1500 UJ	< 1300 U
4-METHYL-2-PENTANONE		< 10 U	< 12 U	< 13 U	< 1500 U	< 1400 U	< 1400 U	< 1500 U	< 1300 U
ACETONE		< 10 U	< 12 U	< 13 U	< 1500 U	910 J	< 1400 U	< 1500 U	< 1300 U
BROMODICHLOROMETHANE		< 10 U	< 12 U	< 13 U	< 1500 U	< 1400 U	< 1400 U	< 1500 U	< 1300 U
BROMOMETHANE		< 10 U	< 12 U	< 13 U	< 1500 U	< 1400 U	< 1400 U	< 1500 U	< 1300 U
CARBON DISULFIDE		< 10 U	< 12 U	< 13 U	< 1500 U	< 1400 U	< 1400 U	< 1500 U	< 1300 U
CARBON TETRACHLORIDE		< 10 U	< 12 U	< 13 U	< 1500 U	< 1400 U	< 1400 U	< 1500 U	< 1300 U
CFC-11		< 10 U	< 12 U	< 13 UJ	< 1500 UJ	< 1400 UJ	< 1400 UJ	< 1500 UJ	< 1300 U
CFC-12		< 10 UJ	< 12 UJ	< 13 UJ	< 1500 U	< 1400 U	< 1400 U	< 1500 U	< 1300 UJ
CHLORINATED FLUOROCARBON (FREON 113)		< 10 U	< 12 U	< 13 UJ	< 1500 U	< 1400 U	< 1400 U	< 1500 U	< 1300 U
CHLOROETHANE		< 10 U	< 12 U	< 13 UJ	< 1500 U	< 1400 U	< 1400 U	< 1500 U	< 1300 U
CHLOROMETHANE		< 10 U	< 12 U	< 13 U	< 1500 U	< 1400 U	< 1400 U	< 1500 U	< 1300 U
CIS-1,3-DICHLOROPROPENE		< 10 U	< 12 U	< 13 U	< 1500 U	< 1400 U	< 1400 U	< 1500 U	< 1300 U
CYCLOHEXANE		< 10 U	< 12 U	< 13 U	< 1500 U	< 1400 U	< 1400 U	< 1500 U	< 1300 U
DIBENZOFURAN		< 10 U	< 12 U	< 13 U	< 1500 U	< 1400 U	< 1400 U	< 1500 U	< 1300 U
ISOPROPYLBENZENE		< 10 U	< 12 U	< 13 U	2800 J	240 J	4900 J	6100 J	< 1300 U
M-DICHLOROBENZENE		< 10 U	< 12 U	< 13 U	< 1500 U	< 1400 U	< 1400 U	< 1500 U	< 1300 U
METHYL N-BUTYL KETONE		< 10 U	< 12 U	< 13 U	< 1500 U	< 1400 U	< 1400 U	< 1500 U	< 1300 U
METHYL TERT-BUTYL ETHER		< 10 U	< 12 U	< 13 U	< 1500 U	< 1400 U	< 1400 U	< 1500 U	< 1300 U
METHYLCYLOHEXANE		< 10 U	< 12 U	< 13 U	340 J	< 1400 U	3300 J	1200 J	190 J
STYRENE (MONOMER)		< 10 U	< 12 U	< 13 U	< 1500 U	< 1400 U	< 1400 U	< 1500 U	< 1300 U
TRANS-1,3-DICHLOROPROPENE		< 10 U	< 12 U	< 13 U	< 1500 U	< 1400 U	< 1400 U	< 1500 U	< 1300 U
TRIBOMOMETHANE		< 10 U	< 12 U	< 13 U	< 1500 U	< 1400 U	< 1400 U	< 1500 U	< 1300 U

Notes: ug/kg = Micrograms per kilogram
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J = Analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
UJ = Analyte was not detected above the reported sample quantitation limit; however, the reported quantitation limit is approximate and may or may not represent the action limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
Values in Boldface exceed the Remediation Goal
Values with dark borders exceed the Remediation Goal and are above detection limit
Listed Remediation Goal is the lowest of the proximal, distal, or area-wide remediation goal as listed in the ROD
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Table 4
Soil Boring Analytical Results
Southeast Rockford Area 7 Soil Sampling

Analyte	Remediation Goal (ug/kg)	A7-MW-X1B
		8/31/2004
1,1,1-TRICHLOROETHANE	180033	< 10 U
1,1,2-TRICHLOROETHANE	619	< 10 U
1,2-DICHLOROETHANE	20	< 10 U
1,1-DICHLOROETHENE	60	< 10 U
BENZENE	30	< 10 U
CHLOROBENZENE	1000	< 10 U
CHLOROFORM	0.6	< 10 U
CIS-1,2-DICHLOROETHENE	400	< 10 U
ETHYLBENZENE	57347	< 10 U
METHYLENE CHLORIDE	1695000	< 16 UJ
TETRACHLOROETHENE	1465	2 J
TOLUENE	255000	2 J
TRANS-1,2-DICHLOROETHENE	700	< 10 U
TRICHLOROETHENE	310	< 10 U
VINYL CHLORIDE	10	< 10 U
XYLENES (TOTAL)	119000	< 10 U
1,1,1-TRICHLORO-2,2-BIS (P-METHOXPHENYL)-ETHANE		< 10 U
1,1,2,2-TETRACHLOROETHANE		< 10 U
1,2,4-TRICHLOROBENZENE		< 10 U
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)		< 10 UJ
1,2-DIBROMOETHANE		< 10 U
1,2-DICHLOROBENZENE		< 10 U
1,1-DICHLOROETHANE		< 10 U
1,2-DICHLOROPROPANE		< 10 U
1,4-DICHLOROBENZENE		< 10 U
2-BUTANONE		3 J
4-METHYL-2-PENTANONE		< 10 U
ACETONE		< 14 U
BROMODICHLOROMETHANE		< 10 U
BROMOMETHANE		< 10 U
CARBON DISULFIDE		< 10 U
CARBON TETRACHLORIDE		< 10 U
CFC-11		< 10 U
CFC-12		< 10 UJ
CHLORINATED FLUOROCARBON (FREON 113)		< 10 U
CHLOROETHANE		< 10 U
CHLOROMETHANE		< 10 U
CIS-1,3-DICHLOROPROPENE		< 10 U
CYCLOHEXANE		< 10 U
DIBENZOFURAN		< 10 U
ISOPROPYLBENZENE		< 10 U
M-DICHLOROBENZENE		< 10 U
METHYL N-BUTYL KETONE		< 10 U
METHYL TERT-BUTYL ETHER		< 10 U
METHYLCYLOHEXANE		< 10 U
STYRENE (MONOMER)		< 10 U
TRANS-1,3-DICHLOROPROPENE		< 10 U
TRIBOMOMETHANE		< 10 U

Notes: ug/kg = Micrograms per kilogram
U = Analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J = Analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
UJ = Analyte was not detected above the reported sample quantitation limit; however, the reported quantitation limit is approximate and may or may not represent the action limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
Values in Boldface exceed the Remediation Goal
Values with dark borders exceed the Remediation Goal and are above detection limit
Listed Remediation Goal is the lowest of the proximal, distal, or area-wide remediation goal as listed in the ROD
Blanks cells indicate results were rejected through data validation

Table 5
Groundwater Analytical Results
Southeast Rockford Area 7 Sampling

Analyte	Remediation Goal (ug/L)	A7-MW-102A		A7-MW-102B		A7-MW-102C		A7-MW-103A	A7-MW-103B	A7-MW-103C
		10/12/2004	6/15/2005	10/12/2004	6/15/2005	10/12/2004	6/15/2005	10/12/2004	10/12/2004	10/12/2004
1,1,1-TRICHLOROETHANE	200	100	95	< 0.5 U	< 0.5 U	120	110	190 J	770	950
1,1,2-TRICHLOROETHANE	5	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	0.9	1.6	0.94	4.7	5
1,2-DICHLOROETHANE	5	< 0.5 U	0.4 J	< 0.5 U	0.71	2	3.3	1.4	3.7	4.3
1,1-DICHLOROETHENE	7	5.6 J	2.7	< 0.5 U	< 0.5 U	51	46	24 J	200	230
BENZENE	5*	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 UJ	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
CHLOROBENZENE	0.1*	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
CHLOROFORM	100*	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	1.2	1.7	1.4	8.8	14
CIS-1,2-DICHLOROETHENE	70*	140	150	4.3	3.6	320	600	530	520	640
ETHYLBENZENE	700	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
METHYLENE CHLORIDE	0.005*		< 0.87 U	< 0.5 UJ	< 0.5 U	< 0.54 U	< 0.5 UJ	< 0.61 U	< 0.59 U	< 0.58 U
TETRACHLOROETHENE	5	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	25 J	30	22 J	130 J	110
TOLUENE	1000	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
TRANS-1,2-DICHLOROETHENE	100*	5.5	4.1	< 0.5 U	< 0.5 U	3.5	4.9	4.6	2.2	2.1
TRICHLOROETHENE	5	23 J	19	< 0.5 U	< 0.5 U	66	110	30 J	260 J	340
VINYL CHLORIDE	2	1.7	0.85 J	0.22 J	< 0.5 UJ	0.58	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
XYLENES (TOTAL)	10000	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
1,1,1-TRICHLORO-2,2-BIS (P-METHOXPHENYL)-ETHANE		< 0.88 UJ	< 0.5 U	< 0.5 U	< 0.5 U	< 0.88 UJ	< 0.5 UJ	< 0.5 UJ	< 0.88 UJ	< 0.88 UJ
1,1,2,2-TETRACHLOROETHANE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
1,2,3-TRICHLOROBENZENE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
1,2,4-TRICHLOROBENZENE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
1,2-DIBROMOETHANE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
1,2-DICHLOROBENZENE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
1,1-DICHLOROETHANE		93	83	2.8	2.2	110	220	61	130	140
1,2-DICHLOROPROPANE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
1,4-DICHLOROBENZENE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
2-BUTANONE		< 5 UJ	< 5 U	< 5 U	< 5 U	< 5 UJ	< 5 U	< 250 U	< 250 U	< 250 U
4-METHYL-2-PENTANONE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
ACETONE		< 5 UJ	< 5 U	1.8 J	0.87 J	< 5 UJ	< 5 U			
BROMODICHLOROMETHANE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
BROMOMETHANE		< 0.5 UJ	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 UJ	< 0.5 U	< 0.5 U	< 0.5 UJ	< 0.5 UJ
CARBON DISULFIDE		< 0.5 UJ	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 UJ	< 0.5 U	< 0.5 U	< 0.5 UJ	< 0.5 UJ
CARBON TETRACHLORIDE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	0.93	1.8
CFC-11		< 0.5 U	< 0.5 UJ	< 0.5 U	< 0.5 UJ	0.53	< 0.5 U	0.71	3.8	4.1
CFC-12		< 0.5 UJ	< 0.5 UJ	< 0.5 U	< 0.5 UJ	< 0.5 UJ	< 0.5 U	< 0.5 U	< 0.5 UJ	< 0.5 UJ
CHLORINATED FLUOROCARBON (FREON 113)		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
CHLOROBROMOMETHANE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
CHLOROETHANE		0.42 J	< 0.5 U	0.36 J	< 0.5 U	0.29 J	0.25 J	< 0.5 U	< 0.5 UJ	< 0.5 UJ
CHLOROMETHANE		< 0.5 UJ	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 UJ	< 0.5 U	< 0.5 U	< 0.5 UJ	< 0.5 UJ
CIS-1,3-DICHLOROPROPENE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
CYCLOHEXANE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
DIBENZOFURAN		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
ISOPROPYLBENZENE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
M-DICHLOROBENZENE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
METHYL N-BUTYL KETONE		< 5 U	< 5 U	< 5 U	0.19 J	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
METHYL TERT-BUTYL ETHER		< 0.5 UJ	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 UJ	< 0.5 U	< 0.5 UJ	< 0.5 UJ	< 0.5 UJ
METHYLCYLOHEXANE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 UJ	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
STYRENE (MONOMER)		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
TRANS-1,3-DICHLOROPROPENE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
TRIBOMOMETHANE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U

Notes: ug/L = Micrograms per Liter
J = Analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J = Analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
UJ = Analyte was not detected above the reported sample quantitation limit; however, the reported quantitation limit is approximate and may or may not represent the action limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
Values in Boldface exceed the Remediation Goal
Values with dark borders exceed the Remediation Goal and are above detection limit
Listed Remediation Goal is the MCL listed in the ROD, unless noted with an * when the value is from the TACO Tier 1 Class I Groundwater remediation objective.
Blanks cells indicate results were rejected through data validation

Table 5
Groundwater Analytical Results
Southeast Rockford Area 7 Sampling

Analyte	Remediation Goal (ug/L)	A7-MW-103D 10/12/2004	A7-MW-105A 6/14/2005	A7-MW-105B 6/14/2005	A7-MW-105C 6/14/2005	A7-MW-105D 6/14/2005	A7-MW-106A 10/12/2004	A7-MW-106B 10/11/2004	A7-MW-106C 10/11/2004	A7-MW-112A 6/14/2005
1,1,1-TRICHLOROETHANE	200	97	23	49	< 0.5 U	0.46 J	570	3.2	1.4	18
1,1,2-TRICHLOROETHANE	5	0.3 J	0.3 J	0.43 J	< 0.5 U	< 0.5 U	0.22 J	< 0.5 UJ	< 0.5 UJ	< 0.5 U
1,2-DICHLOROETHANE	5	< 0.5 U	1.4	1.3	1.2	0.63	4.6	< 0.5 U	< 0.5 U	< 0.5 U
1,1-DICHLOROETHENE	7	13 J	0.26 J	1.1	< 0.5 U	< 0.5 U	54	0.61	0.28 J	0.67
BENZENE	5*	< 0.5 U	0.19 J	0.34 J	< 0.5 U	< 0.5 U	0.33 J	< 0.5 U	< 0.5 U	< 0.5 U
CHLOROBENZENE	0.1*	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
CHLOROFORM	100*	0.64	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	0.8	0.66	0.23 J	< 0.5 U
CIS-1,2-DICHLOROETHENE	70*	210 J	19	70	3.1	4.2	1100	8.2	2.7	1.9
ETHYLBENZENE	700	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	1.3	< 0.5 U	< 0.5 U	< 0.5 U
METHYLENE CHLORIDE	0.005*	< 0.58 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.79 U	< 0.5 U	< 0.5 U	< 0.5 U
TETRACHLOROETHENE	5	9.5 J	2.7	10	< 0.5 U	< 0.5 U	55 J	4	1.9	< 0.5 U
TOLUENE	1000	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	0.7	0.51	< 0.5 U	< 0.5 U	< 0.5 U
TRANS-1,2-DICHLOROETHENE	100*	3.8	1.1	2.2	< 0.5 U	< 0.5 U	11	0.29 J	< 0.5 U	0.17 J
TRICHLOROETHENE	5	23	15	21	< 0.5 U	< 0.5 U	11 J	8.7	3.5	0.49 J
VINYL CHLORIDE	2	< 0.5 U	2.1 J	1.1 J	1.2 J	1.3 J	0.71	< 0.5 U	< 0.5 U	< 0.5 UJ
XYLENES (TOTAL)	10000	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	5.9	< 0.5 U	< 0.5 U	< 0.5 U
1,1,1-TRICHLORO-2,2-BIS (P-METHOXPHENYL)-ETHANE		< 0.88 UJ	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.88 UJ	< 0.5 UJ	< 0.5 UJ	< 0.5 U
1,1,2,2-TETRACHLOROETHANE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	0.4 J	< 0.5 UJ	< 0.5 U	< 0.5 U
1,2,3-TRICHLOROBENZENE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U		< 0.5 U
1,2,4-TRICHLOROBENZENE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U		< 0.5 U
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 UJ		< 0.5 U
1,2-DIBROMOETHANE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
1,2-DICHLOROBENZENE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	1.4	< 0.5 U		< 0.5 U
1,1-DICHLOROETHANE		92 J	20	43	2.3	3.2	120	0.85	1.4	2.1
1,2-DICHLOROPROPANE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
1,4-DICHLOROBENZENE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U		< 0.5 U
2-BUTANONE		< 5 UJ	< 5 U	< 5 U	< 5 U	< 5 U	3.4 J	< 5 U	< 5 U	< 5 U
4-METHYL-2-PENTANONE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
ACETONE		< 5 UJ	< 5 U	< 5 U	< 5 U	0.88 J	< 500 U	< 5 U	< 5 U	0.81 J
BROMODICHLOROMETHANE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
BROMOMETHANE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 UJ	< 0.5 U	< 0.5 U	< 0.5 U
CARBON DISULFIDE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 UJ	< 0.5 U	< 0.5 U	< 0.5 U
CARBON TETRACHLORIDE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
CFC-11		< 0.5 U	< 0.5 UJ	< 0.5 UJ	< 0.5 UJ	< 0.5 UJ	1.2	< 0.5 U	< 0.5 U	< 0.5 UJ
CFC-12		< 0.5 U	< 0.5 UJ	< 0.5 UJ	< 0.5 UJ	< 0.5 UJ	< 0.6 UJ	< 0.5 U	< 0.5 U	< 0.5 UJ
CHLORINATED FLUOROCARBON (FREON 113)		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
CHLOROBROMOMETHANE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
CHLOROETHANE		2.9	< 0.5 U	< 0.5 U	1.9	0.77	1.2 J	< 0.5 U	< 0.5 U	< 0.5 U
CHLOROMETHANE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 UJ	< 0.5 U	< 0.5 U	< 0.5 U
CIS-1,3-DICHLOROPROPENE		< 0.5 UJ	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 UJ	< 0.5 UJ	< 0.5 U
CYCLOHEXANE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
DIBENZOFURAN		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
ISOPROPYLBENZENE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	1.3	< 0.5 U	< 0.5 UJ	< 0.5 U
M-DICHLOROBENZENE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U		< 0.5 U
METHYL N-BUTYL KETONE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
METHYL TERT-BUTYL ETHER		< 0.5 UJ	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	0.41 J	< 0.5 U	< 0.5 U	< 0.5 U
METHYLCYLOHEXANE		< 0.5 UJ	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	0.87	< 0.5 UJ	< 0.5 U	< 0.5 U
STYRENE (MONOMER)		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
TRANS-1,3-DICHLOROPROPENE		< 0.5 UJ	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 UJ	< 0.5 UJ	< 0.5 U
TRIBOMOMETHANE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U		< 0.5 U

Notes: ug/L = Micrograms per Liter
U = Analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J = Analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
UJ = Analyte was not detected above the reported sample quantitation limit; however, the reported quantitation limit is approximate and may or may not represent the action limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
Values in Boldface exceed the Remediation Goal
Values with dark borders exceed the Remediation Goal and are above detection limit
Listed Remediation Goal is the MCL listed in the ROD, unless noted with an * when the value is from the TACO Tier 1 Class I Groundwater remediation objective.
Blanks cells indicate results were rejected through data validation

Table 5
Groundwater Analytical Results
Southeast Rockford Area 7 Sampling
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Analyte	Remediation Goal (ug/L)	A7-MW-112B 6/14/2005	A7-MW-112C 6/13/2005	A7-MW-122A 6/15/2005	A7-MW-122B 6/15/2005	A7-MW-133A 10/12/2004	A7-MW-133B 10/12/2004	A7-MW-133C 10/12/2004	A7-MW-134A 10/13/2004	A7-MW-134B 10/11/2004
1,1,1-TRICHLOROETHANE	200	0.23 J	< 0.5 U	18	< 0.5 U	< 0.5 U	850 J	200	7800	33
1,1,2-TRICHLOROETHANE	5	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 UJ	3.6	1.4	< 1000 U	< 0.5 U
1,2-DICHLOROETHANE	5	6	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	4.7	1.9	< 1000 U	< 0.5 U
1,1-DICHLOROETHENE	7	0.92	< 0.5 U	0.94	< 0.5 U	< 0.5 U	160 J	65	880 J	3.1
BENZENE	5*	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 1000 U	< 0.5 U
CHLOROBENZENE	0.1*	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	0.25 J	< 0.5 U
CHLOROFORM	100*	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	7.3	6.7	7.4 J	0.28 J
CIS-1,2-DICHLOROETHENE	70*	18	0.16 J	6.4	3	< 0.5 U	1700 J	120	17000 J	120
ETHYLBENZENE	700	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 UJ	< 0.5 U	< 0.5 U	520 J	< 0.5 U
METHYLENE CHLORIDE	0.005*	< 0.5 U	< 0.5 U	< 0.54 UJ	< 0.5 UJ	< 0.5 UJ	< 0.69 U	< 0.62 U	< 1000 U	< 0.5 U
TETRACHLOROETHENE	5	0.36 J	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 UJ	110	23 J	4.9	11
TOLUENE	1000	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 UJ	< 0.5 U	< 0.5 U	940 J	< 0.5 U
TRANS-1,2-DICHLOROETHENE	100*	0.52	< 0.5 U	0.54	< 0.5 U	< 0.5 U	19	1.1	< 1000 U	3.1
TRICHLOROETHENE	5	1.4	< 0.5 U	4	< 0.5 U	< 0.5 UJ	200		9	5.4
VINYL CHLORIDE	2	5.9 J	< 0.5 UJ	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	7600	< 0.5 U
XYLENES (TOTAL)	10000	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 UJ	< 0.5 U	< 0.5 U	2900	< 0.5 U
1,1,1-TRICHLORO-2,2-BIS (P-METHOXPHENYL)-ETHANE		< 0.5 U	< 0.5 U	< 0.5 UJ	< 0.5 UJ	< 0.5 U	< 0.88 UJ	< 0.88 UJ	< 1000 U	< 0.5 UJ
1,1,2,2-TETRACHLOROETHANE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	3.8	< 0.5 U
1,2,3-TRICHLOROBENZENE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
1,2,4-TRICHLOROBENZENE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
1,2-DIBROMOETHANE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 UJ	< 0.5 U
1,2-DICHLOROBENZENE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 1000 U	< 0.5 U
1,1-DICHLOROETHANE		24	< 0.5 U	13	1.4	< 0.5 U	260 J	58	5200	110
1,2-DICHLOROPROPANE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 UJ	< 0.5 U
1,4-DICHLOROBENZENE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	1.8	< 0.5 U
2-BUTANONE		< 5 U	< 5 U	0.39 J	< 5 U	< 5 U		< 5 UJ	38 J	< 5 U
4-METHYL-2-PENTANONE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 10000 U	< 5 U
ACETONE		1.2 J	< 5 U	< 5 U	< 5 U	< 5 U		< 5 UJ	15 J	< 5 U
BROMODICHLOROMETHANE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 UJ	< 0.5 U
BROMOMETHANE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 UJ	< 0.5 U
CARBON DISULFIDE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 UJ	< 0.5 U
CARBON TETRACHLORIDE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	0.6	< 1000 U	< 0.5 U
CFC-11		< 0.5 UJ	< 0.5 UJ	< 0.5 U	< 0.5 U	< 0.5 U	3.5	1.4	< 0.5 UJ	< 0.5 U
CFC-12		< 0.5 UJ	< 0.5 UJ	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 UJ	0.29 J
CHLORINATED FLUOROCARBON (FREON 113)		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 UJ	< 0.5 U
CHLOROBROMOMETHANE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 UJ	< 0.5 U
CHLOROETHANE		4.6	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	0.22 J	< 0.5 U	7200	< 0.5 U
CHLOROMETHANE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	1.6 J	< 0.5 U
CIS-1,3-DICHLOROPROPENE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 UJ	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
CYCLOHEXANE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 UJ	< 0.5 U
DIBENZOFURAN		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 UJ	< 0.5 U
ISOPROPYLBENZENE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 UJ	< 0.5 U	< 0.5 U	< 1000 U	< 0.5 U
M-DICHLOROBENZENE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	0.28 J	< 0.5 U
METHYL N-BUTYL KETONE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	3.6 J	< 5 U
METHYL TERT-BUTYL ETHER		< 0.5 U	< 0.5 U	< 0.5 U	1.1	< 0.5 U	< 0.5 UJ	< 0.5 UJ	< 0.5 UJ	< 0.5 U
METHYLCYLOHEXANE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	9 J	< 0.5 U
STYRENE (MONOMER)		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 UJ	< 0.5 U	< 0.5 U	< 1000 U	< 0.5 U
TRANS-1,3-DICHLOROPROPENE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 UJ	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
TRIBOMOMETHANE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 UJ	< 0.5 U

Notes: ug/L = Micrograms per Liter
U = Analyte was analyzed for, but was not detected above the reported sample quantitation limit.
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Table 5
Groundwater Analytical Results
Southeast Rockford Area 7 Sampling
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Analyte	Remediation Goal (ug/L)	A7-MW-134C	A7-MW-135B	A7-MW-136	A7-MW-143	A7-MW-144	A7-MW-145
		10/12/2004	6/13/2005	10/13/2004	6/13/2005	6/13/2005	6/15/2005
1,1,1-TRICHLOROETHANE	200	11	12	0.3 J	67	710	760
1,1,2-TRICHLOROETHANE	5	< 0.5 U	< 0.5 U	< 0.5 UJ	< 0.5 U	2.2	< 0.5 U
1,2-DICHLOROETHANE	5	4.1	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	1.2
1,1-DICHLOROETHENE	7	2.8	1.5	< 0.5 U	6.2	39 J	32 J
BENZENE	5*	< 0.5 U	0.16 J	< 0.5 U	< 0.5 U	0.41 J	0.22 J
CHLOROBENZENE	0.1*	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
CHLOROFORM	100*	< 0.5 U	0.9	1.1	0.3 J	2	0.4 J
CIS-1,2-DICHLOROETHENE	70*	10	150	0.32 J	0.89	910	1200
ETHYLBENZENE	700	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	2
METHYLENE CHLORIDE	0.005*	< 0.5 UJ	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
TETRACHLOROETHENE	5	4.3	21	0.25 J	46	47	16
TOLUENE	1000	< 0.5 U	< 0.5 U	0.28 J	< 0.5 U	< 0.5 U	0.24 J
TRANS-1,2-DICHLOROETHENE	100*	0.25 J	3.1	< 0.5 U	< 0.5 U	3.6	6
TRICHLOROETHENE	5	4.5	57	0.25 J	9.6	36 J	4.5
VINYL CHLORIDE	2	< 0.5 U	< 0.5 UJ	< 0.5 U	< 0.5 UJ	< 0.5 UJ	< 0.5 UJ
XYLENES (TOTAL)	10000	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	0.26 J	2.5
1,1,1-TRICHLORO-2,2-BIS (P-METHOXPHENYL)-ETHANE	[redacted]	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
1,1,2,2-TETRACHLOROETHANE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
1,2,3-TRICHLOROBENZENE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
1,2,4-TRICHLOROBENZENE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
1,2-DIBROMOETHANE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
1,2-DICHLOROBENZENE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	0.69
1,1-DICHLOROETHANE		19	7.4	< 0.5 U	1.8	60	89
1,2-DICHLOROPROPANE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
1,4-DICHLOROBENZENE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	0.1 J
2-BUTANONE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
4-METHYL-2-PENTANONE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
ACETONE		< 5 U	< 5 U	1.8 J	< 5 U	0.46 J	0.97 J
BROMODICHLOROMETHANE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
BROMOMETHANE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
CARBON DISULFIDE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
CARBON TETRACHLORIDE		< 0.5 U	< 0.5 U	< 0.5 U	0.4 J	< 0.5 U	< 0.5 U
CFC-11		< 0.5 U	< 0.5 UJ	< 0.5 U	0.31 J	0.48 J	0.44 J
CFC-12		< 0.5 U	< 0.5 UJ	< 0.5 U	< 0.5 UJ	< 0.5 UJ	< 0.5 UJ
CHLORINATED FLUOROCARBON (FREON 113)		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
CHLOROBROMOMETHANE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
CHLOROETHANE		0.76	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
CHLOROMETHANE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
CIS-1,3-DICHLOROPROPENE		< 0.5 U	< 0.5 U	< 0.5 UJ	< 0.5 U	< 0.5 U	< 0.5 U
CYCLOHEXANE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
DIBENZOFURAN		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
ISOPROPYLBENZENE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	1.6
M-DICHLOROBENZENE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
METHYL N-BUTYL KETONE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
METHYL TERT-BUTYL ETHER		< 0.5 U	0.24 J	0.3 J	< 0.5 U	< 0.5 U	0.41 J
METHYLCYLOHEXANE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	0.96
STYRENE (MONOMER)		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
TRANS-1,3-DICHLOROPROPENE		< 0.5 U	< 0.5 U	< 0.5 UJ	< 0.5 U	< 0.5 U	< 0.5 U
TRIBOMOMETHANE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	0.2 J	< 0.5 U

Notes: ug/L = Micrograms per Liter
U = Analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J = Analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
UJ = Analyte was not detected above the reported sample quantitation limit; however, the reported quantitation limit is approximate and may or may not represent the action limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
Values in Boldface exceed the Remediation Goal
Values with dark borders exceed the Remediation Goal and are above detection limit
Listed Remediation Goal is the MCL listed in the ROD, unless noted with an * when the value is from the TACO Tier 1 Class I Groundwater remediation objective.
Blanks cells indicate results were rejected through data validation

Figures

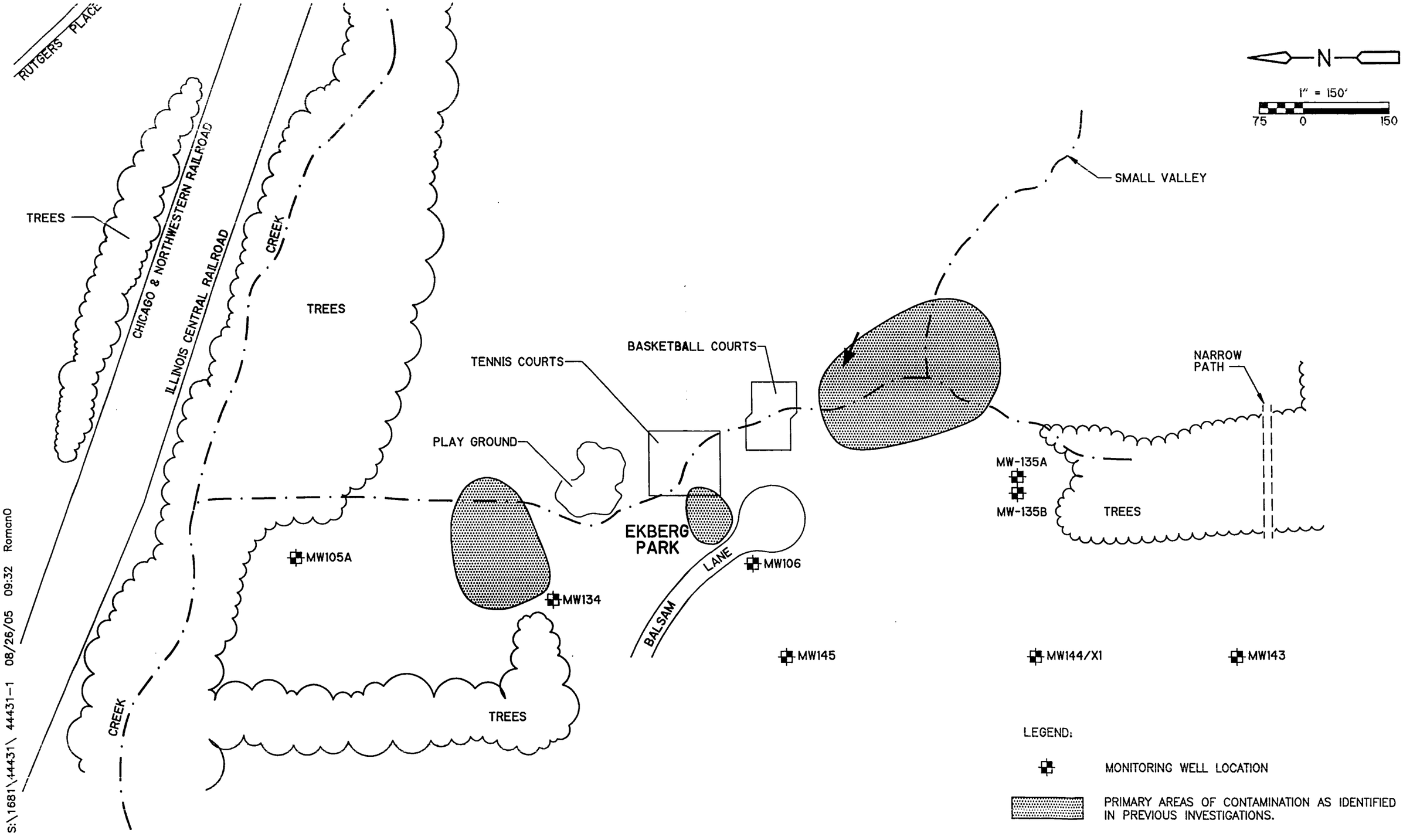

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Figure 1
AREA 7 PRE-DESIGN PRIMARY AREAS OF CONTAMINATION

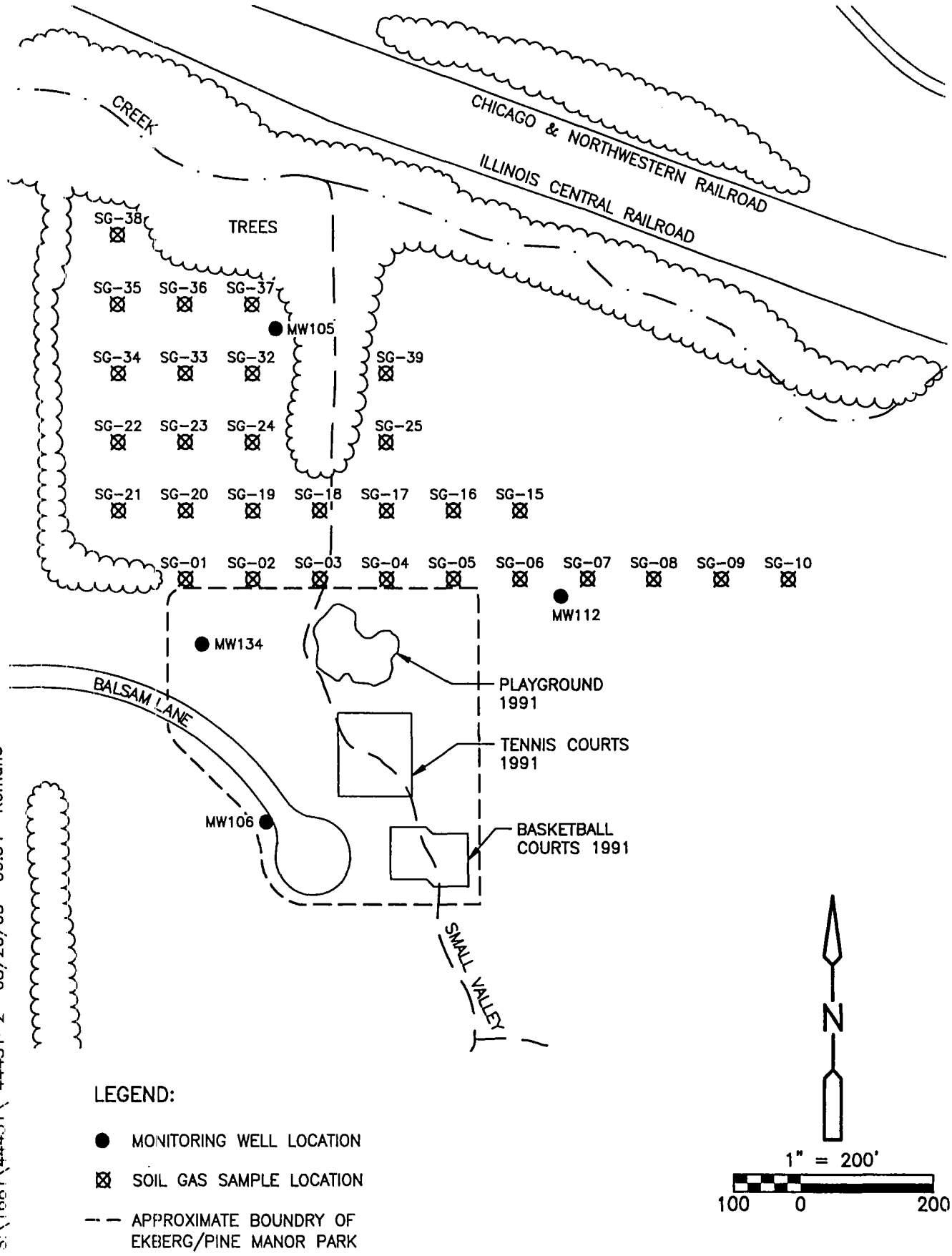

Figure 2
AREA 7 PRE-DESIGN SOIL GAS SAMPLING LOCATIONS

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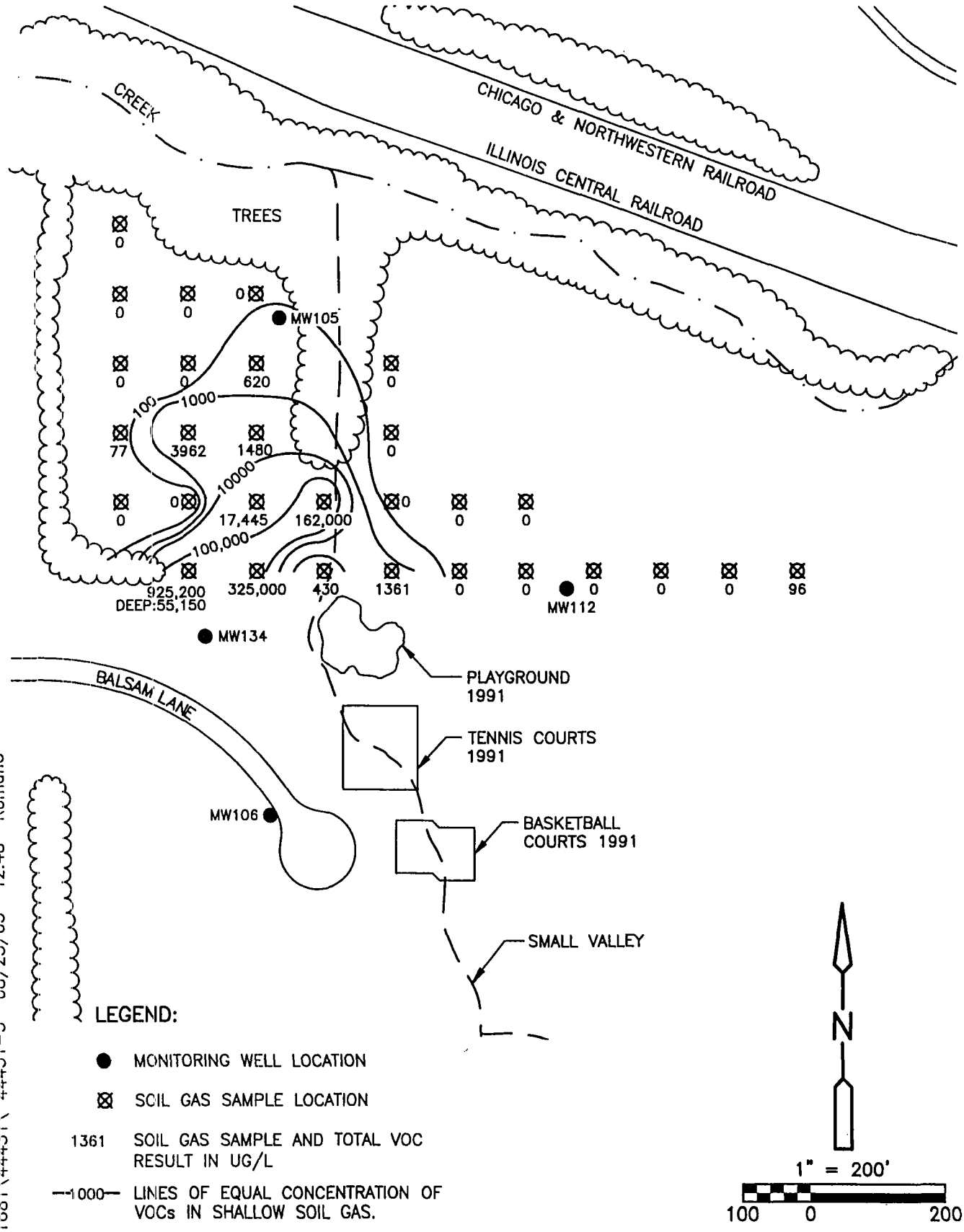

NOTE: ALL SOIL GAS SAMPLE RESULTS FOR SHALLOW SAMPLE INTERVAL EXCEPT AS SHOWN.

Figure 3

AREA 7 PRE-DESIGN SOIL GAS SAMPLING RESULTS

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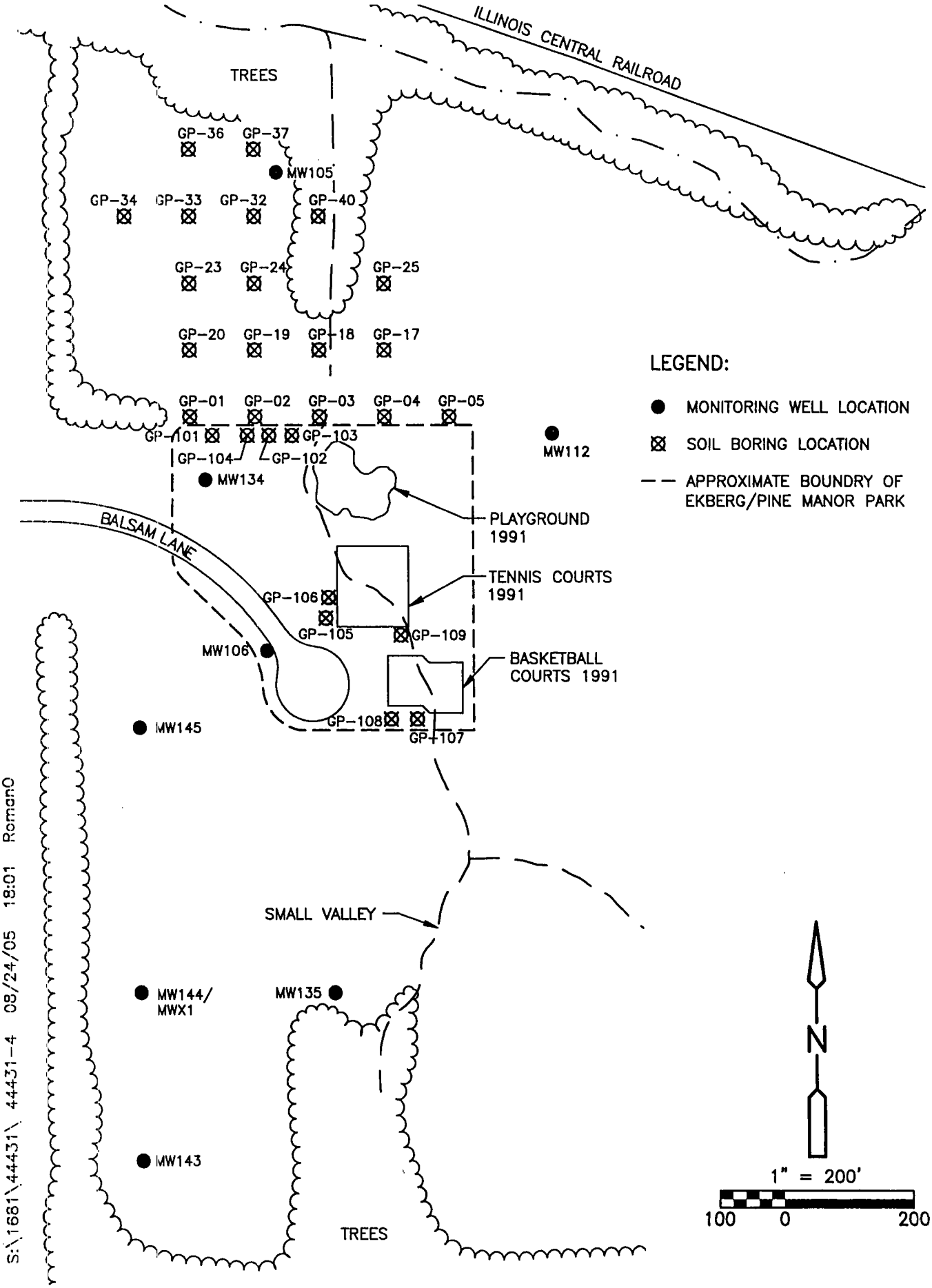


Figure 4
AREA 7 PRE-DESIGN BORING LOCATIONS

CDM

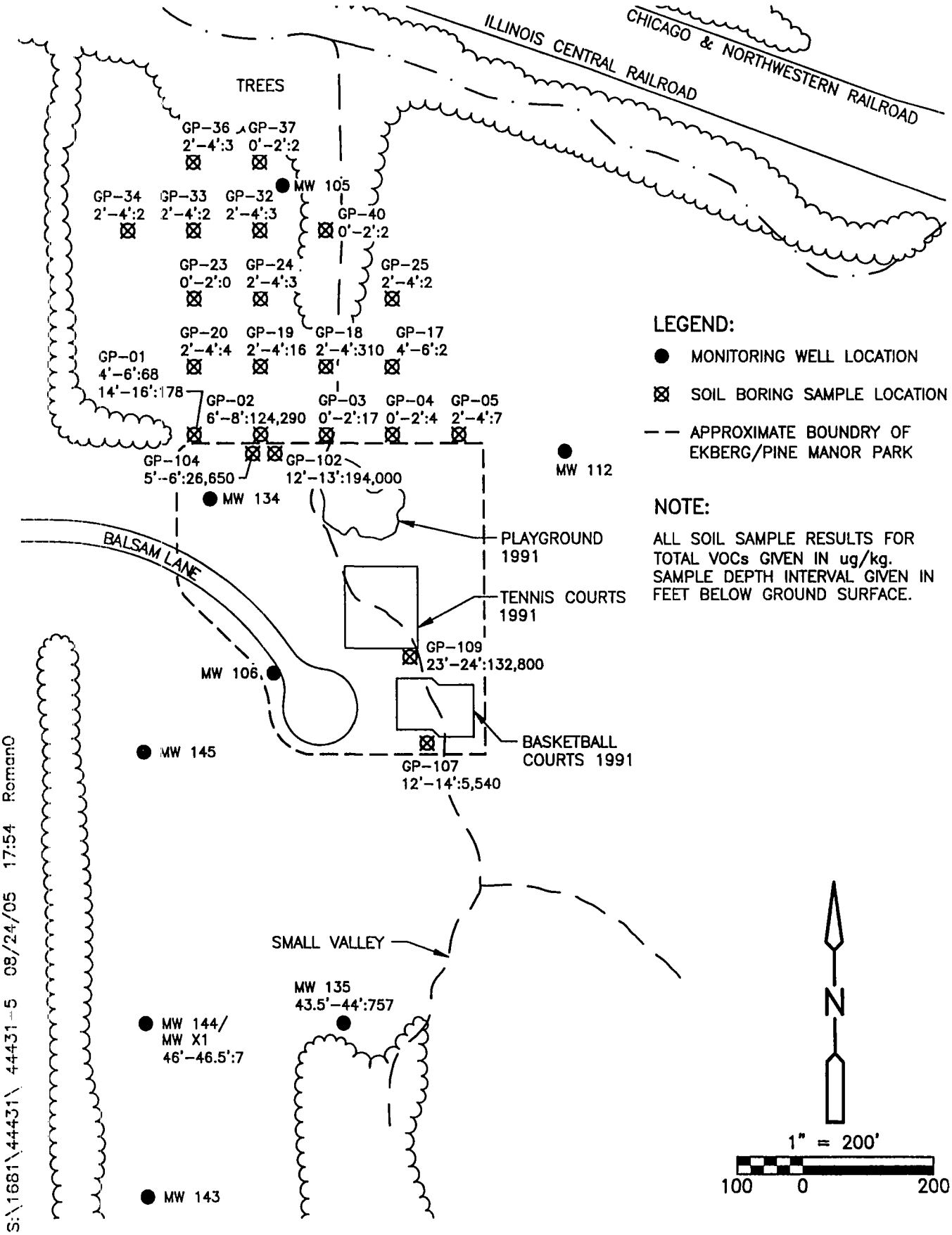
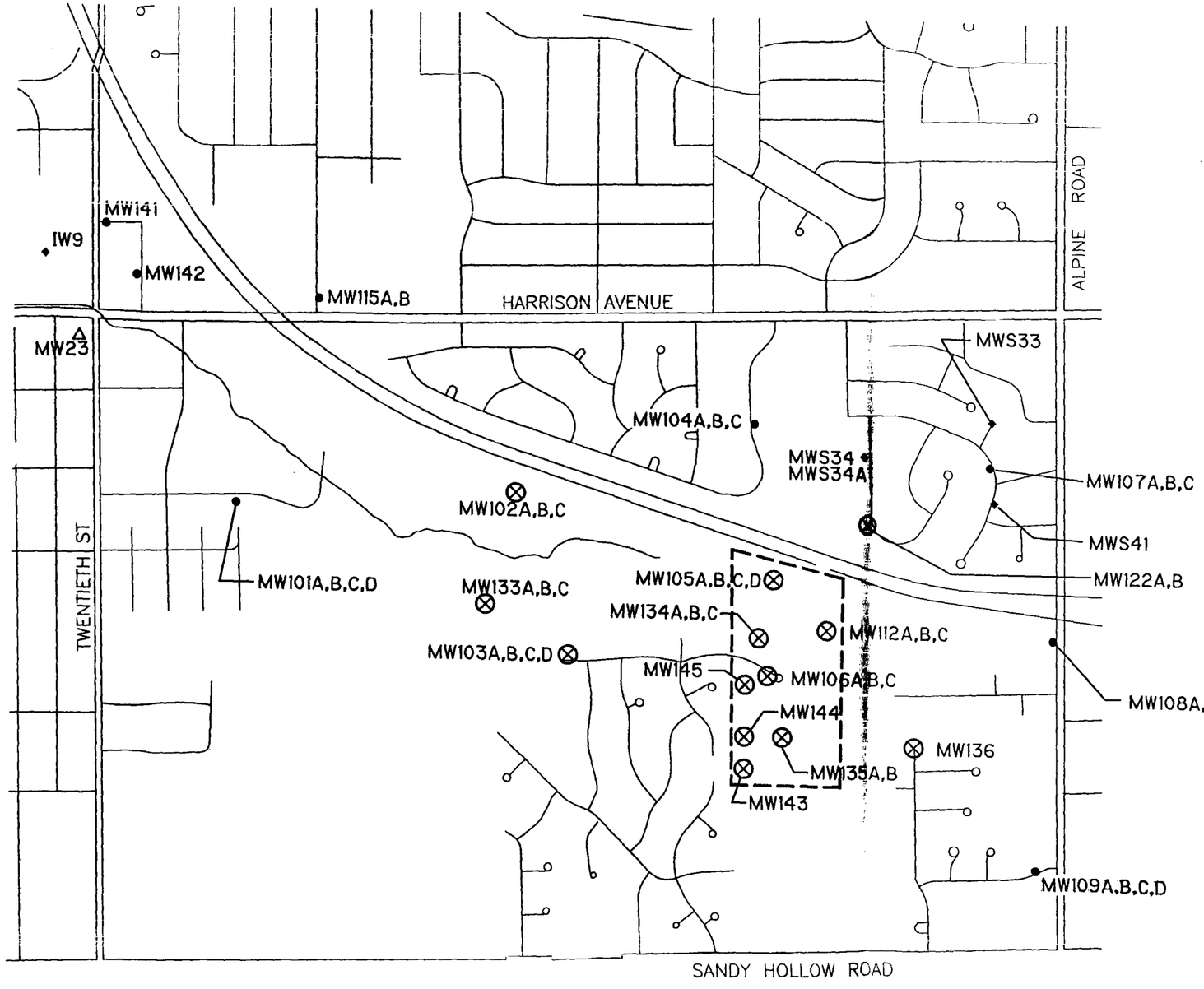


Figure 5
AREA 7 PRE-DESIGN SOIL SAMPLING RESULTS

CDM



LEGEND:

⊗ MW136	CDM/IEPA MONITORING WELL SAMPLED FOR AREA 7 PRE-DESIGN FIELD STUDY: LETTER SUFFIX INDICATES SPECIFIC WELL OF A WELL NEST
• MW101	CDM/IEPA MONITORING WELL OR WELL NEST; NOT SAMPLED AS PART OF AREA 7 PRE-DESIGN FIELD STUDY
◆ IW14	INDUSTRIAL SUPPLY WELL OR MONITORING WELL
△ MW30	ISWS WELL
- - - -	APPROXIMATE BOUNDARY OF SOURCE AREA 7

N

1" = 1000'

500 0 1000

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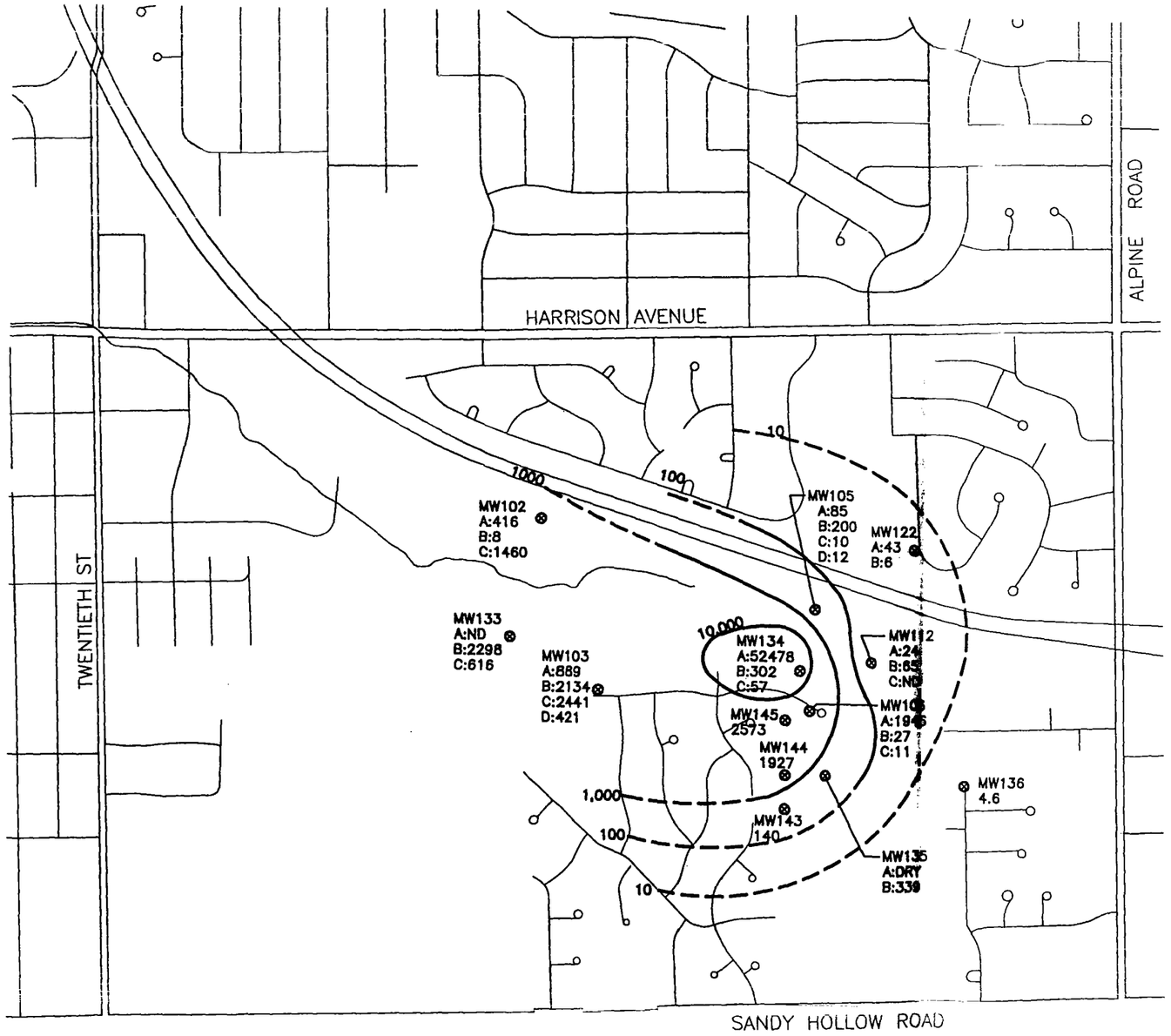
CDM

Figure 6
AREA 7 PRE-DESIGN GROUNDWATER MONITORING WELL LOCATIONS



LEGEND:

⊗ MW136	WELLS SAMPLED FOR AREA 7 PRE-DESIGN FIELD STUDY
A:570	MONITIORING WELL SCREEN NAME AND TOTAL VOC CONCENTRATION (PPB) IN GROUNDWATER
—100—	ISOCONCENTRATION CONTOUR FOR TOTAL VOCs; CONTOURS DASHED WHERE INFERRED

NOTES:

TOTAL VOC RESULTS BASED ON OCTOBER 2004 AND JUNE 2005 SAMPLING RESULTS.

DRY–MONITORING WELL DRY DURING SAMPLING EVENT.
ND–VOCs NOT DETEDCTED ABOVE METHOD DETECTING LIMITS.

N

1" = 1000'

500 0 1000

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CDM

Figure 7
AREA 7 PRE-DESIGN GROUNDWATER SAMPLING RESULTS

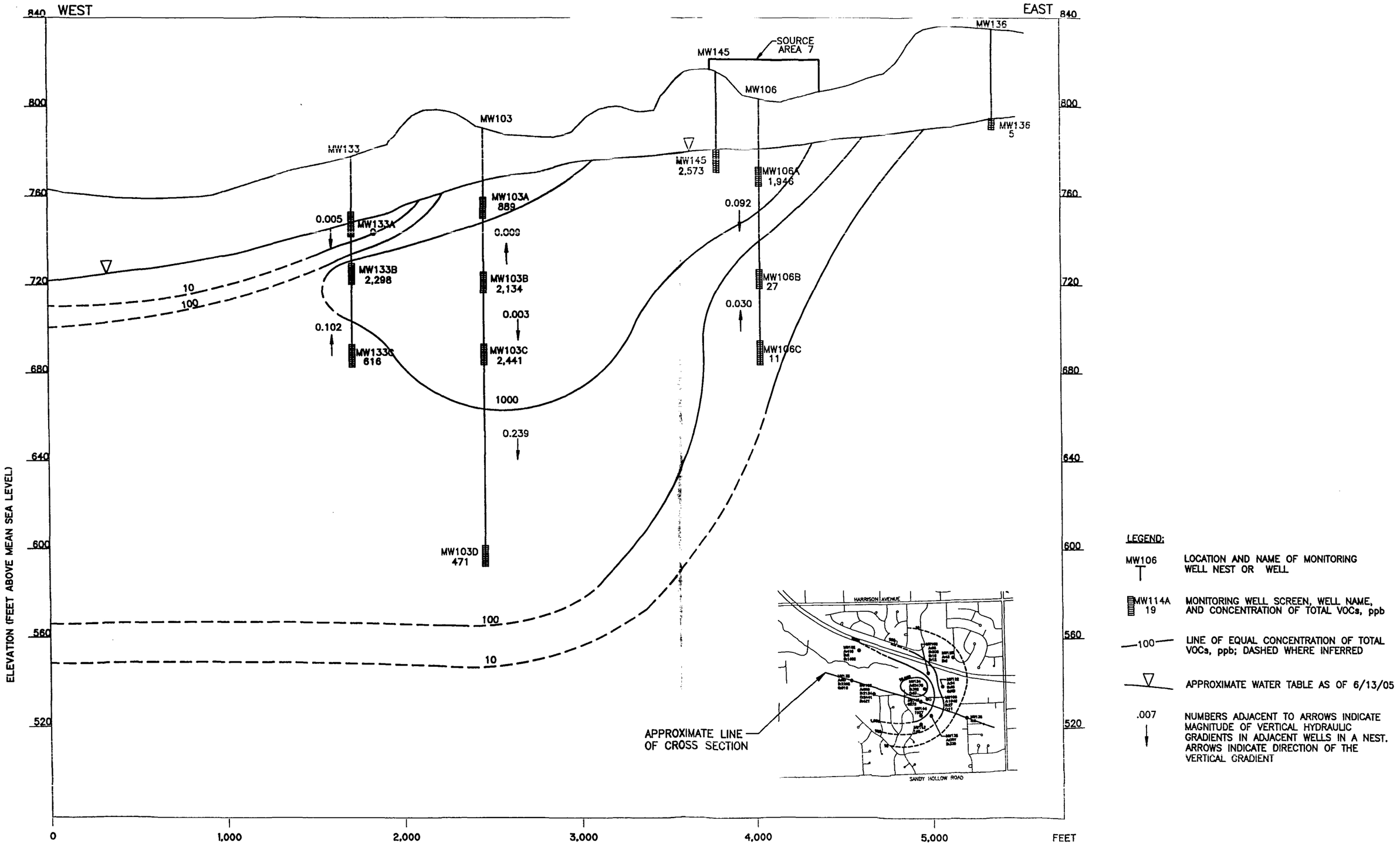

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Figure 8
AREA 7 PRE-DESIGN
CROSS SECTION ALONG LENGTH OF AREA 7 CONTAMINANT PLUME

CDM

A' SOUTH

A NORTH

ELEVATION (FEET ABOVE MEAN SEA LEVEL)

860 840 820 800 780 760 740 720 700 680 660 640

MW143 MW144/X1 GROUND SURFACE MW145 MW134 MW105

MW143 140

MW144 1,927

MW145 2,573

MW134A 52,478

MW134B 302

MW134C 57

MW105A 85

MW105B 200

MW105C 10

MW105D 12

50,000 1,000 0.055 0.211 0.231 0.092 0.006

1000 100

LEGEND:

MW106 — LOCATION AND NAME OF MONITORING WELL NEST OR WELL

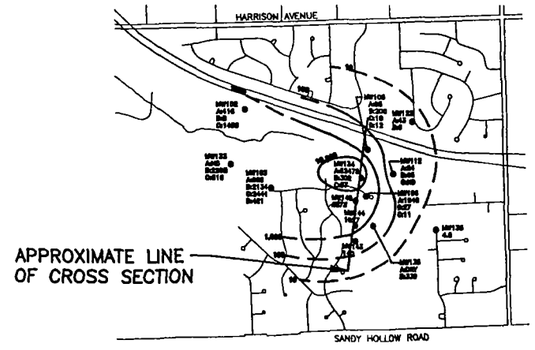
MW114A 19 — MONITORING WELL SCREEN, WELL NAME, AND CONCENTRATION OF TOTAL VOCs, ppb

100 — LINE OF EQUAL CONCENTRATION OF TOTAL VOCs, ppb; DASHED WHERE INFERRED

APPROXIMATE WATER TABLE AS OF 6/13/05

.007 — NUMBERS ADJACENT TO ARROWS INDICATE MAGNITUDE OF VERTICAL HYDRAULIC GRADIENTS IN ADJACENT WELLS IN A NEST. ARROWS INDICATE DIRECTION OF THE VERTICAL GRADIENT

DATUM ELEV. SEA LEVEL



0 100 200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 FEET

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CDM

Figure 9
AREA 7 PRE-DESIGN
CROSS SECTION ALONG WIDTH OF AREA 7 CONTAMINANT PLUME

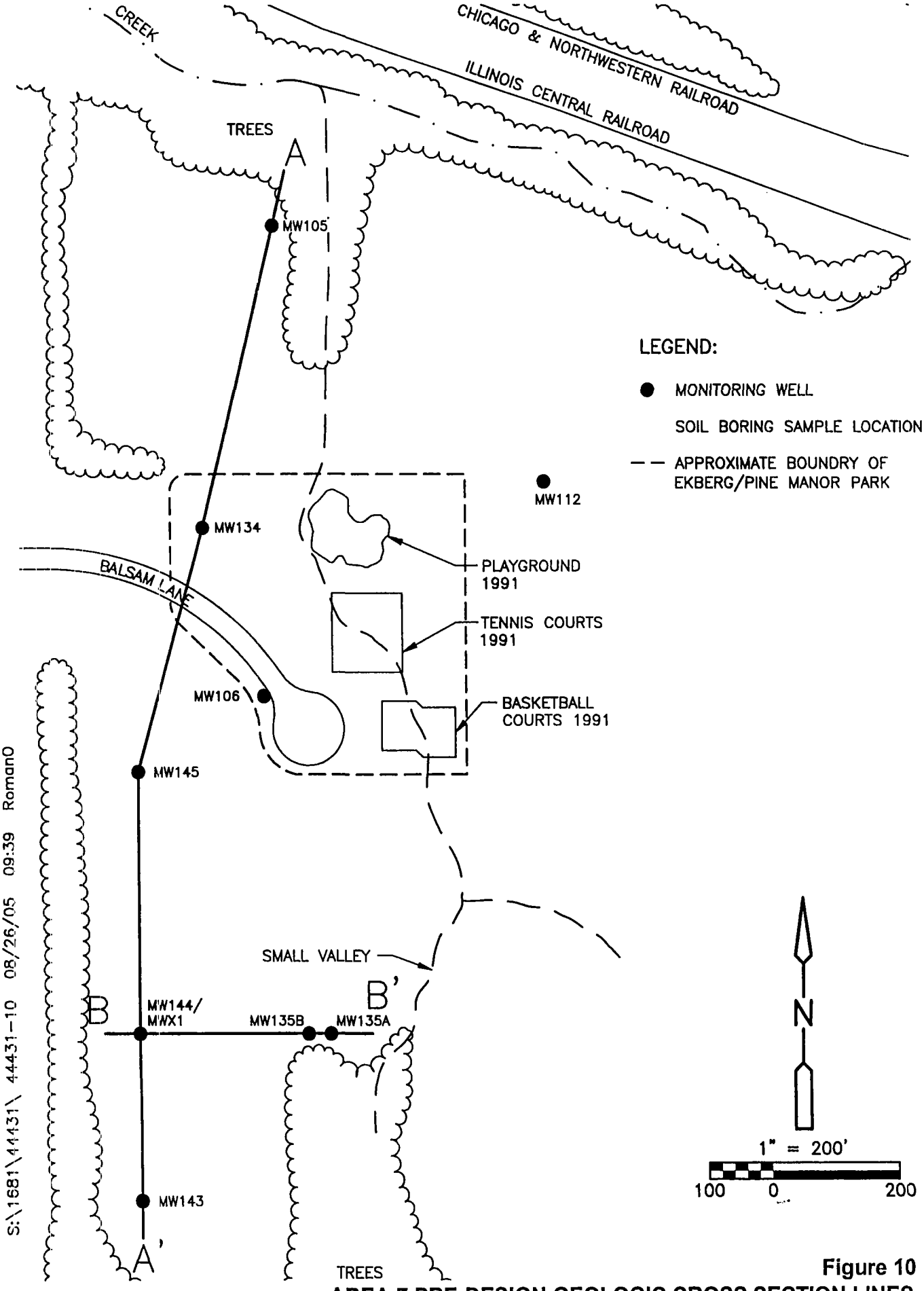
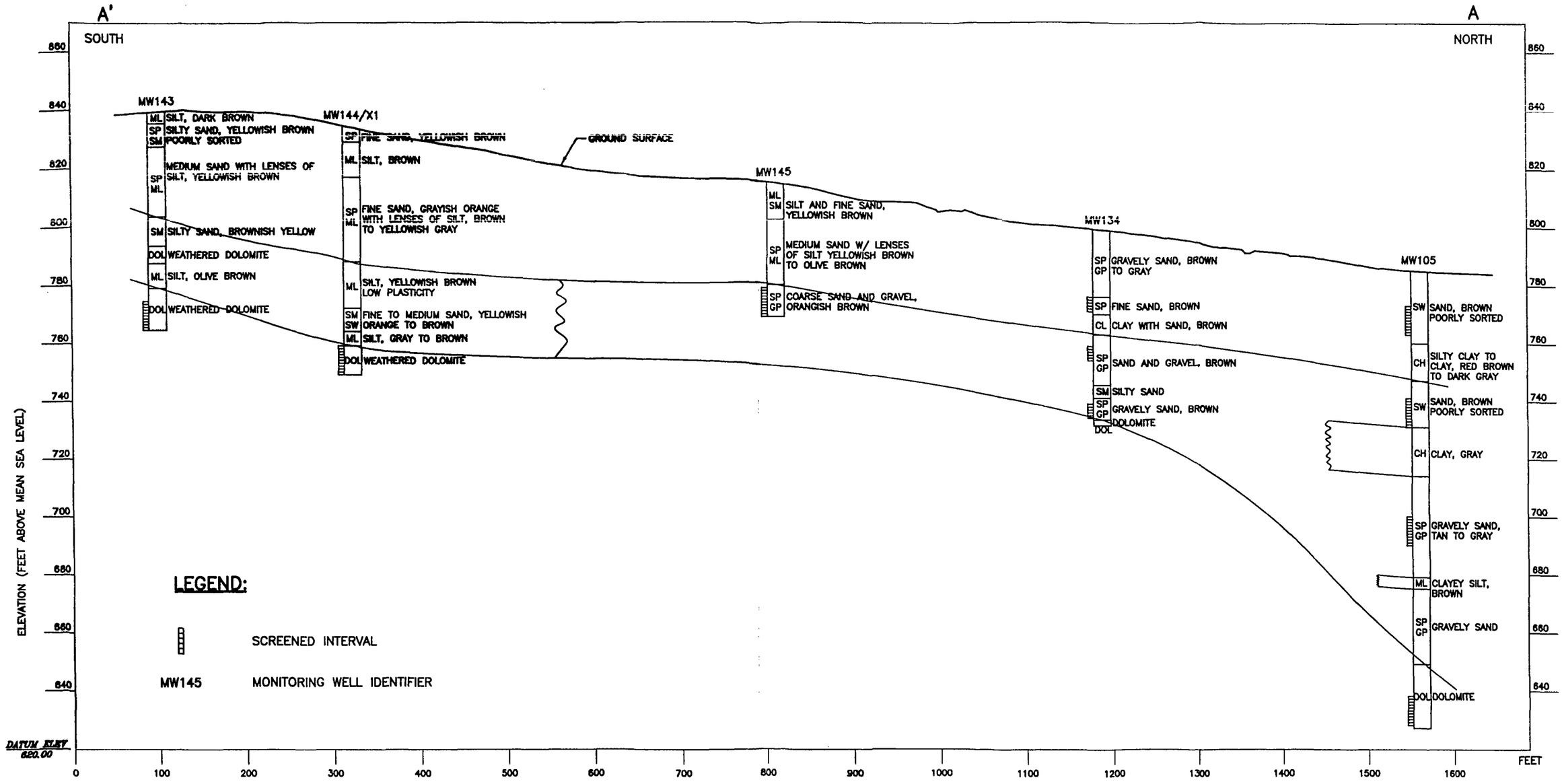


Figure 10

AREA 7 PRE-DESIGN GEOLOGIC CROSS SECTION LINES

CDM



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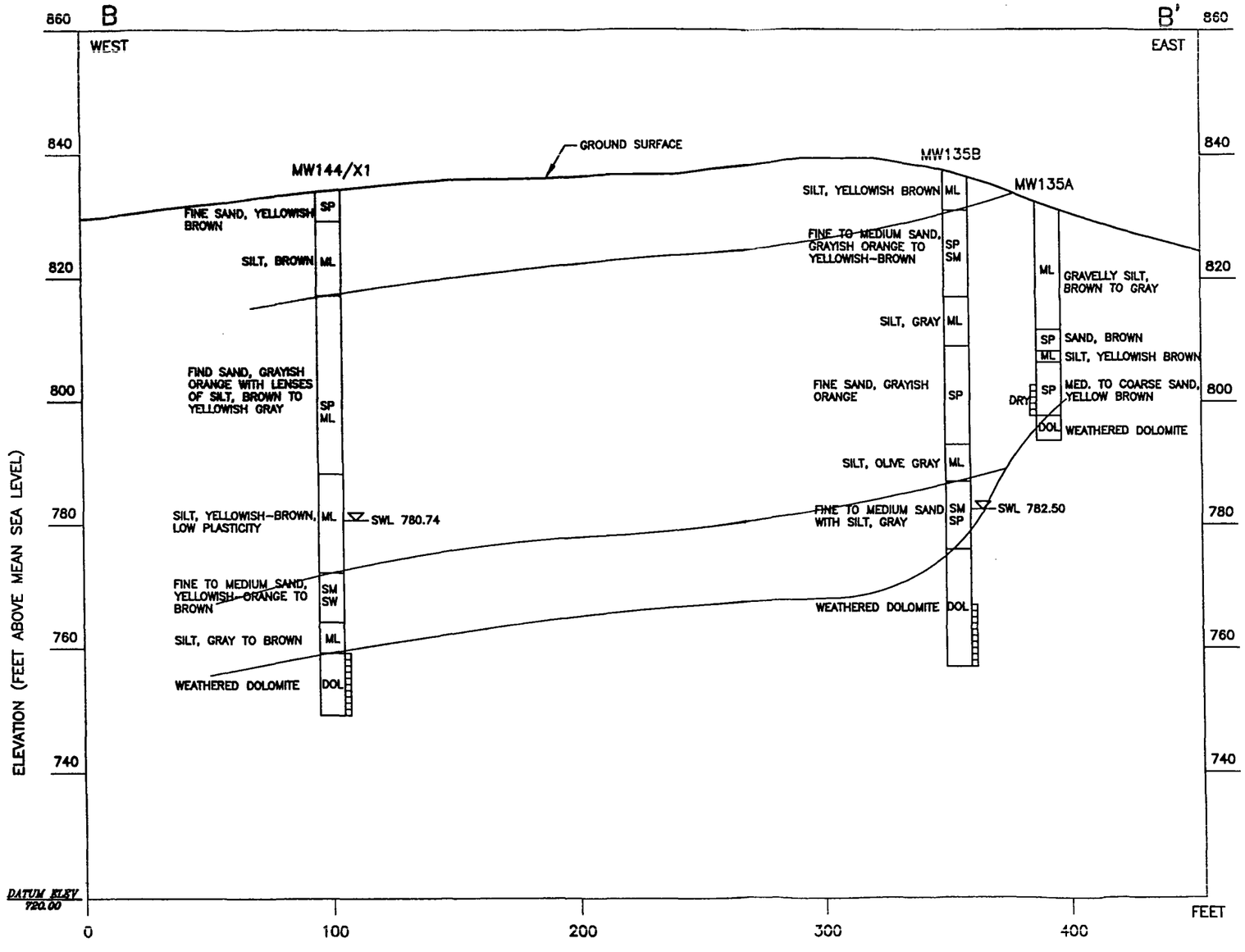
NOTES:
1. WELL LOCATIONS ARE PROJECTED TO LINE OF SECTION. SEE FIGURE 10 FOR LINE OF SECTION.
2. GROUND SURFACE ELEVATIONS TAKEN FROM TOPOGRAPHIC LAND SURVEY CONDUCTED IN 2004.

CDM

Figure 11
AREA 7 PRE-DESIGN
GENERALIZED GEOLOGIC CROSS SECTION A-A'



LEGEND:

	SCREENED INTERVAL
MW135A	MONITORING WELL IDENTIFIER
SWL 782.50	STATIC WATER LEVEL ELEVATION (6/13/05)

NOTES:
1 WELL LOCATIONS ARE PROJECTED TO LINE OF SECTION. SEE FIGURE 10 FOR LINE OF SECTION.

2. GROUND SURFACE ELEVATIONS TAKEN FROM TOPOGRAPHIC LAND SURVEY CONDUCTED IN 2004.

Figure 12
AREA 7 PRE-DESIGN
GENERALIZED GEOLOGIC CROSS SECTION B-B'

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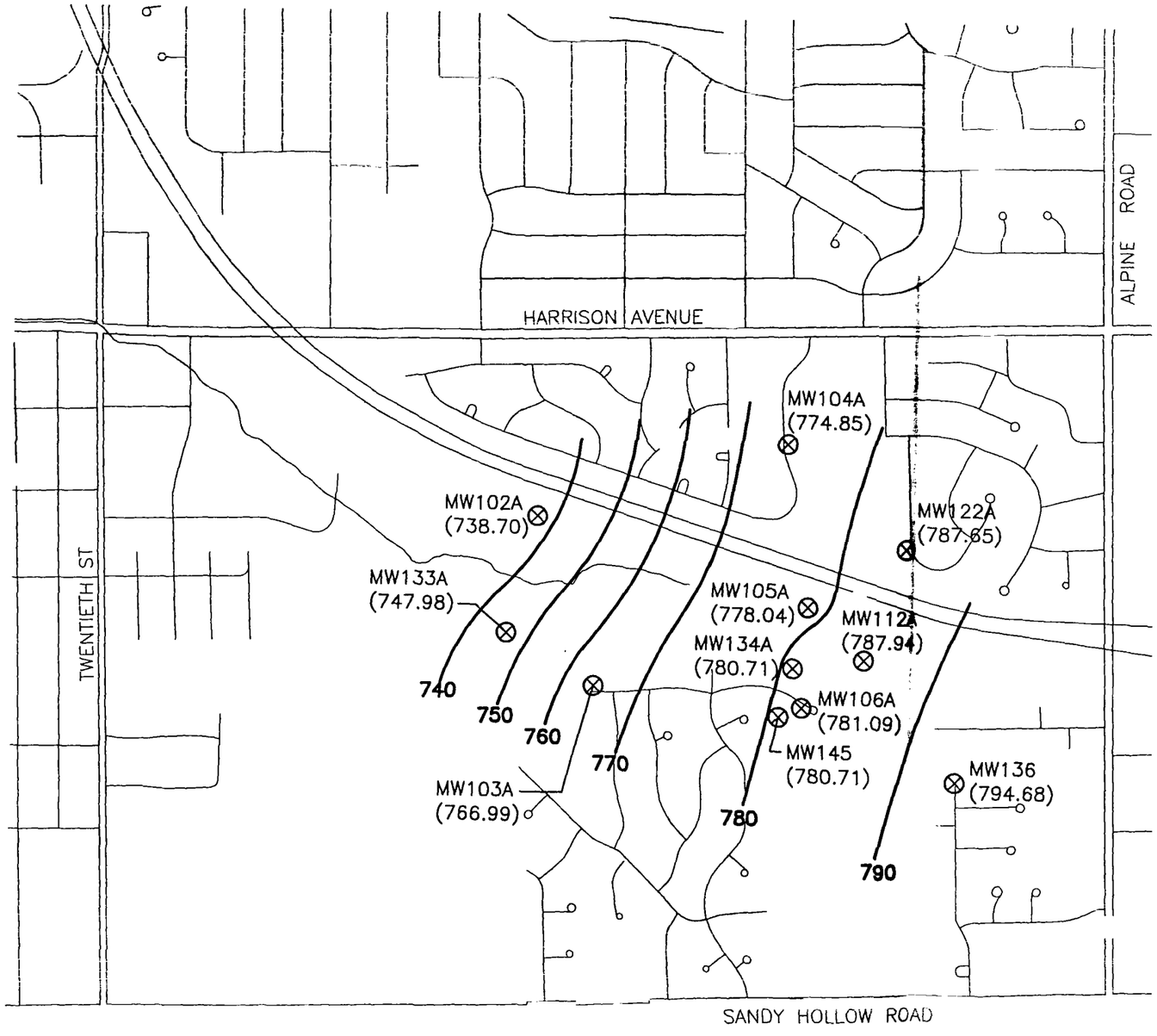

LEGEND:

⊗ MW136 (794.68) WELLS SAMPLED FOR AREA 7 PRE-DESIGN FIELD STUDY, OCTOBER 2004 AND JUNE 2005.

—780— GROUNDWATER ELEVATION CONTOUR

NOTES:

1. GROUNDWATER ELEVATION IN PARENTHESES (FEET ABOVE MEAN SEA LEVEL) COLLECTED JUNE 13, 2005.
2. MW104 SERIES WELLS WERE NOT SAMPLED AND DEPTH TO WATER MEASURMENTS WERE COLLECTED JUNE 16, 2005.
3. MAP INCLUDES WELLS IN THE SHALLOW PORTION OF THE UNCONSOLIDATED AQUIFER, GENERALLY WITHIN 25 FEET OF WATER TABLE.

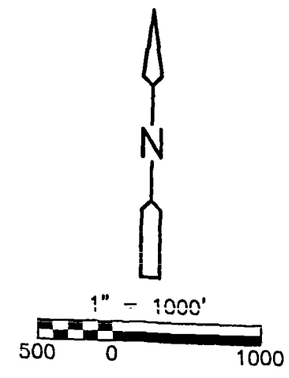

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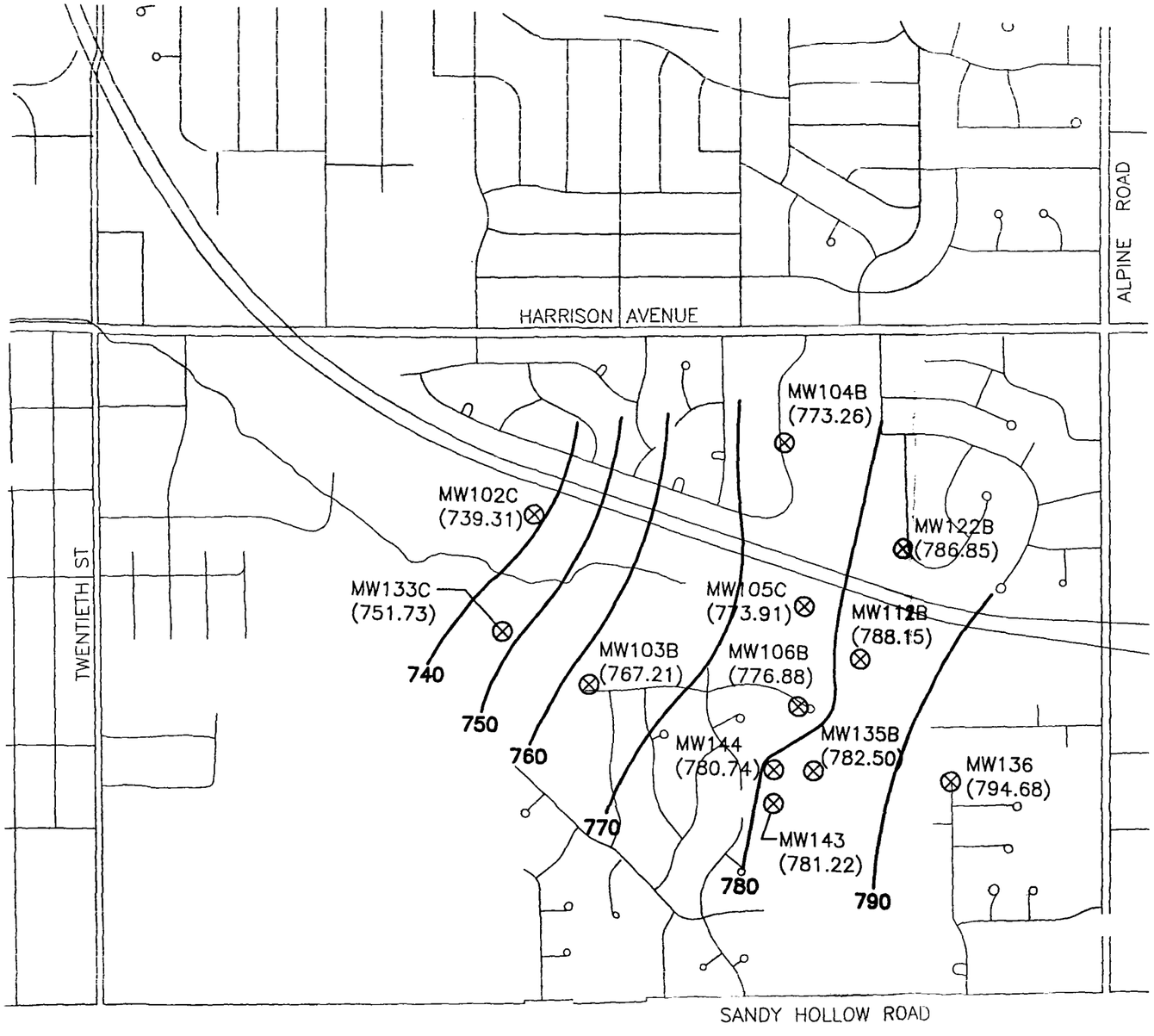
Figure 13
AREA 7 PRE-DESIGN
JUNE 2005 GROUNDWATER ELEVATIONS IN THE UNCONSOLIDATED AQUIFER



LEGEND:

⊗ MW143 (781.22) WELLS SAMPLED FOR AREA 7 PRE-DESIGN FIELD STUDY, OCTOBER 2004 AND JUNE 2005.

—780— GROUNDWATER ELEVATION CONTOUR

NOTES:

1. GROUNDWATER ELEVATION IN PARENTHESES (FEET ABOVE MEAN SEA LEVEL) COLLECTED JUNE 13, 2005.
2. MW104 SERIES WELLS WERE NOT SAMPLED AND DEPTH TO WATER MEASURMENTS WERE COLLECTED JUNE 16, 2005.
3. MAP INCLUDES WELLS IN SHALLOW PORTION OF BEDROCK AQUIFER, GENERALLY WITHIN 50 FEET OF UPPER BEDROCK SURFACE.

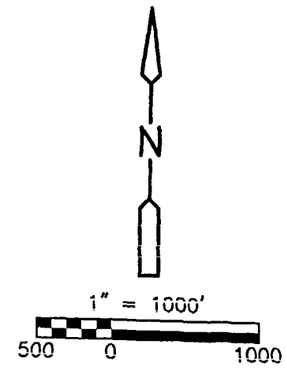


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Figure 14
AREA 7 PRE-DESIGN
JUNE 2005 GROUNDWATER ELEVATIONS IN THE DOLOMITE AQUIFER